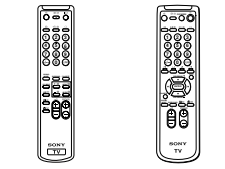
Self Diagnosis Supported model

SERVICE MANUAL

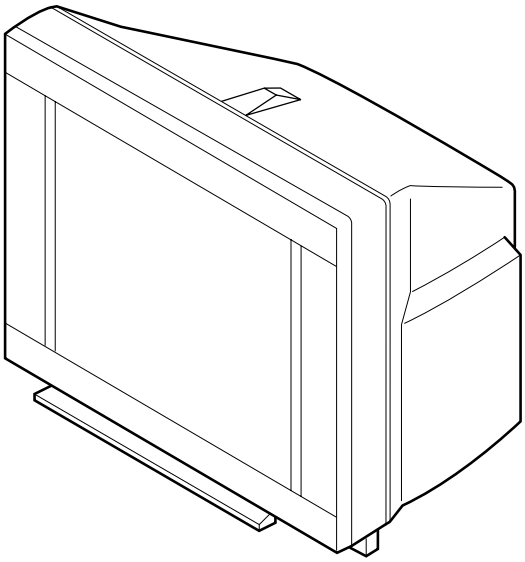
BG-3R CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-XA29M60	RM-954	Thailand	SCC-U49B-A
KV-XA29M84	RM-953	ME	SCC-U48A-A

MODEL	COMMANDER	DEST.	CHASSIS NO.



RM-954 RM-953



TRINITRON ® COLOR TV

SONY ®

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SPECIFICATIONS

		Note
Power requirements	110-240 V AC, 50/60 Hz	KV-XA29M84 only
	220-240 V AC, 50/60 Hz	KV-XA29M60 only
Power consumption (W)	Indicated on the rear of the TV	
Television system	B/G, I, D/K, M	
Color system	PAL, PAL 60, SECAM, NTSC4.43, NTSC3.58	
Stereo/Bilingual system	NICAM Stereo/Bilingual B/G, I, DK; A2 Stereo/Bilingual B/G	KV-XA29M60 only
Channel coverage		
B/G	VHF: E2 to E12 / UHF: E21 to E69 / CATV: S01 to S03, S1 to S41	
I	UHF: B21 to B68 / CATV: S01 to S03, S1 to S41	
D/K	VHF: C1 to C12, R1 to R12 / UHF: C13 to C57, R21 to R60 CATV: S01 to S03, S1 to S41, Z1 to Z39	
M	VHF: A2 to A13 / UHF: A14 to A79 / CATV: A-8 to A-2, A to W+4, W+6 to W+84	
(Antenna)	75-ohm external terminal	
Audio output (Speaker)	8W + 8W	10% distortion
Number of terminal		
(Video)	Input: 4* Output: 1 * Three input lines available	Phono jacks; 1 V_{P-P}, 75 ohms
♪ (Audio)	Input: 4* Output: 1 * Three input lines available	Phono jacks; 500 mVrms
(S Video)	Input: 2	Y : 1 Vp-p, 75 ohms, unbalanced, sync negative C : 0.286 Vp-p, 75 ohms
(Component Video)	Input: 1	Phono jacks Y : 1 Vp-p, 75 ohms, sync negative C_B : 0.7 Vp-p, 75 ohms C_R : 0.7 Vp-p, 75 ohms Audio : 500 mVrms
(Headphones)	Output: 1	Stereo minijack
Picture tube	29 inch	
Tube size (cm)	72	Measured diagonally
Screen size (cm)	68	Measured diagonally
Dimension (w/h/d, mm)	722 x 576 x 516	
Mass (kg)	51	

Design and specifications are subject to change without notice.

CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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SELF DIAGNOSTIC FUNCTION

The units in this manual contain a self-diagnostic function. If an error occurs, the STANDBY/TIMER lamp will automatically begin to flash.
The number of times the lamp flashes translates to a probable source of the problem. A definition of the STANDBY/TIMER lamp flash indicators is listed in the instruction manual for the user's knowledge and reference. If an error symptom cannot be reproduced, the remote commander can be used to review the failure occurrence data stored in memory to reveal past problems and how often these problems occur.

1. DIAGNOSTIC TEST INDICATORS

When an errors occurs, the STANDBY/TIMER lamp will flash a set number of times to indicate the possible cause of the problem. If there is more than one error, the lamp will identify the first of the problem areas.

Result for all of the following diagnostic items are displayed on screen. No error has occured if the screen displays a "0".

Diagnostic Item Description	No. of times STANDBY/TIMER lamp flashes	Self-diagnostic display/Diagnostic result	Probable Cause Location	Detected Symptoms
• Power does not turn on	Does not light	—	• Power cord is not plugged in. • Fuse is burned out F4601 (F)	• Power does not come on. • No power is supplied to the TV. • AC power supply is faulty.
• +B overcurrent (OCP) or overvoltage (OVP) • Vertical deflection stopped • Horizontal deflection overdrive	2 times	002:000 or 002:001~255 003:001~255 004:001~255 at the same time	• H.OUT Q511 is shorted. (A board) • Q701, Q702, Q703 is shorted (C6 board) • -13V is not supplied. (A board) • IC 503 faulty (A board)	• Power does not come on. • Load on power line is shorted. • Has entered standby state after horizontal raster. • Vertical deflection pulse is stopped. • Power line is shorted or power supply is stopped.
• White balance failure (no PICTURE)	5 times	005:000 or 005:001~225	• G2 is improperly adjusted. (Note 2) • CRT problem. • R(Q703), G(Q702) or B(Q701) out is faulty (C6 board) • IC301 is faulty. (A board) • No connection A board to C6 board.	• No raster is generated. • CRT cathode current detection reference pulse output is small.
• Micro reset	—	101:00 or 101:001~225	• Discharge CRT (C6 Board) • Static discharge • External noise	• Power is shut down shortly, after this return back to normal. • Detect Micro latch up.

Note 1: If a + B overcurrent is detected, stoppage of the vertical deflection is detected simultaneously.
The symptom that is diagnosed first by the microcontroller is displayed on the screen.
Note 2: Refer to screen (G2) Adjustment in section 3-4 of this manual.
* R(Q703), G(Q702) or B(Q701) out is faulty (C6 board).

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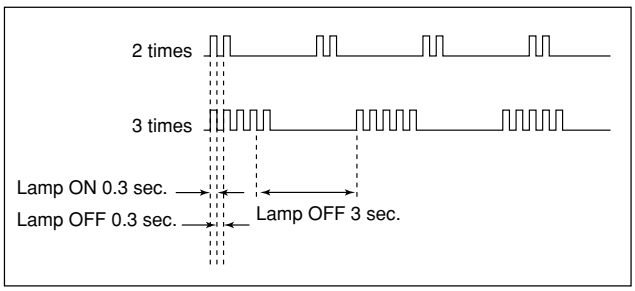
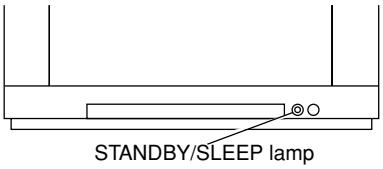
2. DISPLAY OF STANDBY/TIMER LIGHT FLASH COUNT



Diagnostic Item	Flash Count*
+B overcurrent/overvoltage Vertical deflection stopped	2 times
White balance failure	5 times

* One flash count is not used for self-diagnostic.



3. STOPPING THE STANDBY/TIMER FLASH

Turn off the power switch on the TV main unit or unplug the power cord from the outlet to stop the STANDBY/TIMER lamp from flashing.

4. SELF-DIAGNOSTIC SCREEN DISPLAY

For errors with symptoms such as “power sometimes shuts off” or “screen sometimes goes out” that cannot be confirmed, it is possible to bring up past occurances of failure for confirmation on the screen:

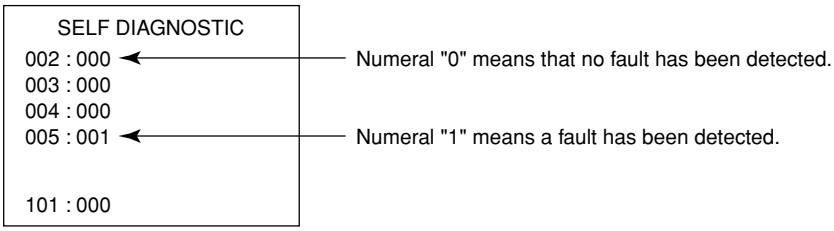
[To Bring Up Screen Test]
In standby mode, press buttons on the remote commander sequentially in rapid succession as shown below:

Screen display ➡ channel 5 ➡ Sound volume - ➡ Power ON

⇧

Note that this differs from entering the service mode (mode volume +).

Self-Diagnosis screen display


SELF DIAGNOSTIC
002 : 000
003 : 000
004 : 000
005 : 001
101 : 000
Numeral "0" means that no fault has been detected.
Numeral "1" means a fault has been detected.

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5. HANDLING OF SELF-DIAGNOSTIC SCREEN DISPLAY

Since the diagnostic results displayed on the screen are not automatically cleared, always check the self-diagnostic screen during repairs. When you have completed the repairs, clear the result display to “0”.

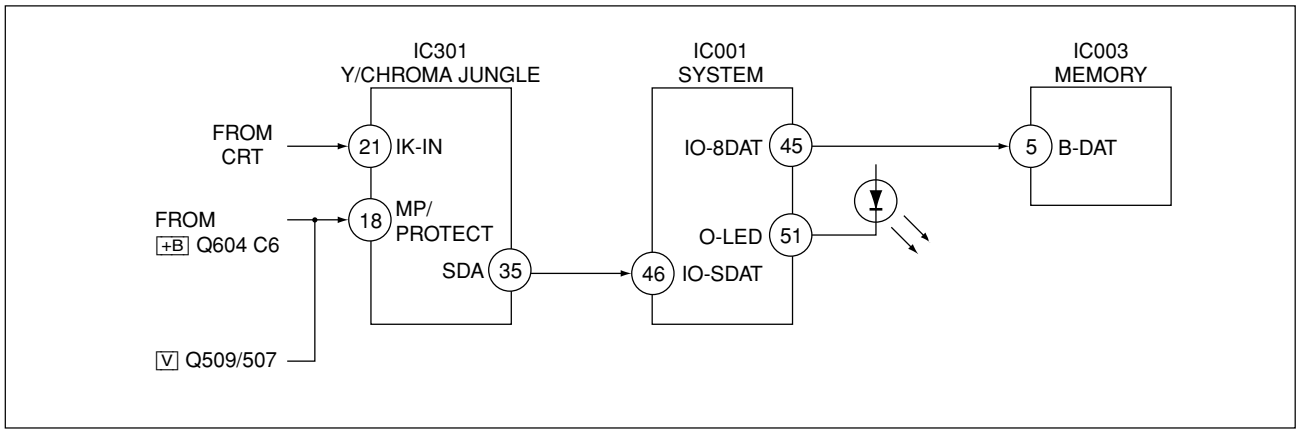
Unless the result display is cleared to “0”, the self-diagnostic function will not be able to detect subsequent faults after completion of the repairs.

[Clearing the result display]
To clear the result display to “0”, press buttons on the remote commander sequentially as shown below when the diagnostic screen is being displayed.

Channel [8] ➡ 0

[Quitting Self-diagnostic screen]
To quit the entire self-diagnostic screen, turn off the power switch on the remote commander or the main unit.

6. SELF-DIAGNOSTIC CIRCUIT



+B overcurrent (OCP)	Occurs when an overcurrent on the +B(135) line is detected by Q604. If Q604 go to ON and the voltage to pin 18 of IC301 should go down when V.SYNC is more than seven verticals in a period, the unit will automatically turn off.
Vertical deflection stopped	Occurs when an absence of the vertical deflection pulse is detected by Q509 and IC001 shut down the power supply.
Vertical deflection overcurrent	Occurs when an overcurrent on V drive line is detected by Q507. Power supply will be shut down when detect this by IC001.
White balance failure	If the RGB levels* do not balance or become low level within 5 seconds, this error will be detected by IC301. TV will stay on, but there will be no picture. * (Refers to the RGB levels of the AKB detection Ref pulse that detects IK.)

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The operating instruction mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

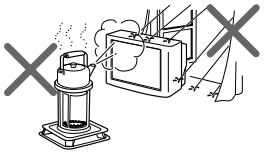
SECTION 1
GENERAL 1-2
(KV-XA29M84)

WARNING

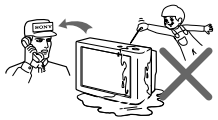
- Dangerously high voltages are present inside the TV.
- TV operating voltage: 110 – 240 V AC.

For your own safety, do not touch any part of the TV, the power cord and the antenna cable during lightning storms.

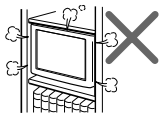
For children's safety, do not leave children alone with the TV. Do not allow children to climb onto it.



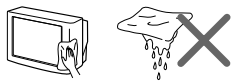
To prevent fire or shock hazard, do not expose the TV to rain or moisture.



Do not operate the TV if any liquid or solid object falls into it. Have it checked immediately by qualified personnel only.

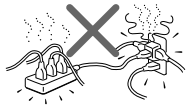


Do not block the ventilation openings of the TV. Do not install the TV in a confined space, such as a bookcase or built-in cabinet.

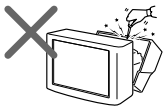


Clean the TV with a dry and soft cloth. Do not use benzine, thinner, or any other chemicals to clean the TV. Do not scratch the picture tube.

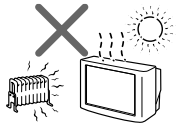
Pull the power cord out by the plug. Do not pull the power cord itself. Disconnect the TV before moving it or if you are not going to use it for several days.



Do not plug in too many appliances to the same power socket. Do not damage the power cord.

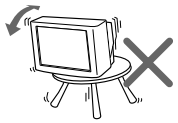


Do not open the cabinet and the rear cover of the TV as high voltages and other hazards are present inside the TV. Refer servicing and disposal of the TV to qualified personnel.

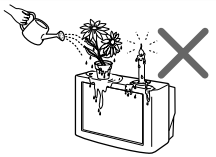


Your TV is recommended for home use only. Do not use the TV in any vehicle or where it may be subject to excessive dust, heat, moisture or vibrations.

WARNING (continued)



Do not install the TV in an unstable position. Use a proper TV stand.



Do not place any objects on the TV.

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Getting Started

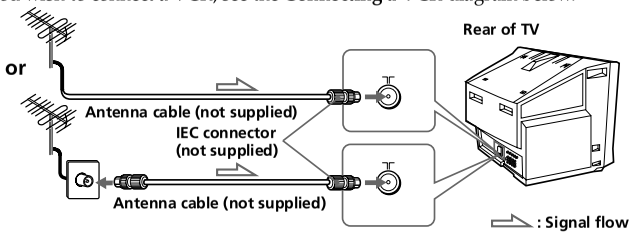
CAUTION

- Do not connect the power cord until you have completed making all other connections; otherwise a minimum leakage current might flow through the antenna and other terminals to ground.
- To avoid battery leakage and damage to the remote, remove the batteries from the remote if you are not going to use it for several days. If any liquid that leaks from the batteries touches you, immediately wash it away with water.

Step 1

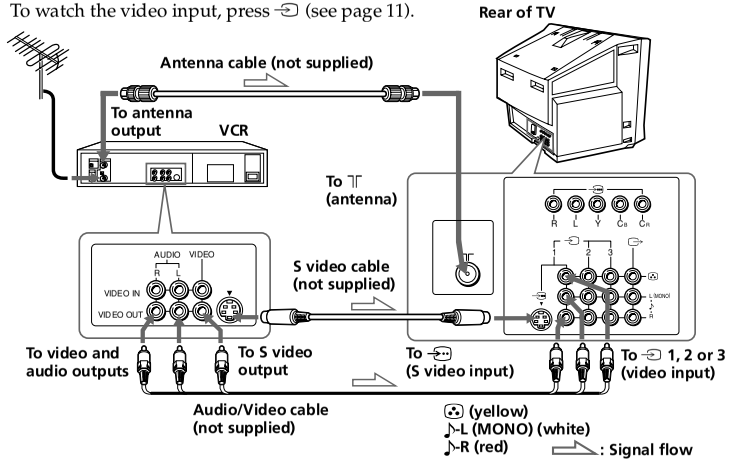
Connect the antenna

If you wish to connect a VCR, see the **Connecting a VCR** diagram below.



Connecting a VCR

To watch the video input, press ⊃ (see page 11).

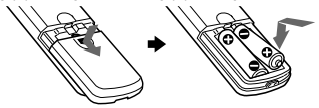


Notes

- If you connect a monaural VCR, connect the yellow plug to (the yellow jack) and the black plug to ♪-L (MONO) (the white jack).
- If you connect a VCR to the ⊤ (antenna) terminal, preset the signal output from the VCR to the program number 0 on the TV.
- If both ⊃ (S video input) and ⊃ 1 (video input) at the rear of your TV are input at the same time, the ⊃ (S video input) is automatically selected. To view the video input to ⊃ 1 (video input), disconnect the S video cable.
- Do not connect video equipment to ⊃ 3 (video input) at the front and the rear of your TV at the same time; otherwise the picture will not be displayed properly on the screen.
- When no signal is input from the connected video equipment, the TV screen becomes blue.

Step 2

Insert the batteries into the remote



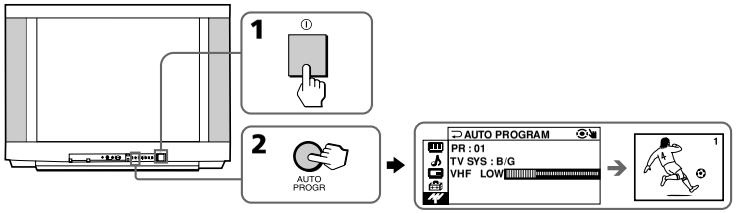
Note

- Do not use old batteries nor use different types of batteries together.

Step 3

Preset the channels automatically

Front of TV



Tips

- If you want to stop the automatic channel presetting, press MENU.
- If your TV has preset an unwanted channel or cannot preset a particular channel, then preset your TV manually (see page 31).

Note

- During automatic channel presetting, your TV screen will indicate “B/G”, “I”, “D/K” or “M” for the TV system (“TV SYS”).

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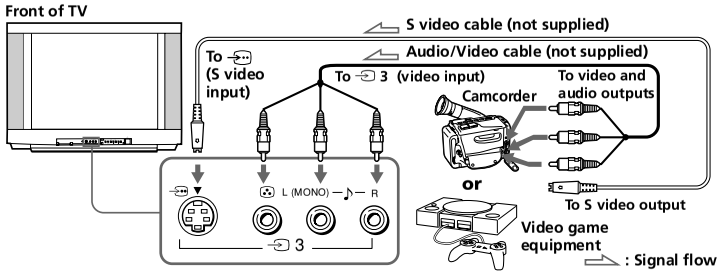
Connecting optional components

You can connect optional audio/video components, such as a VCR, multi disc player, DVD, camcorder, video game or stereo system. To watch the picture of the connected equipment, press → (see page 11).

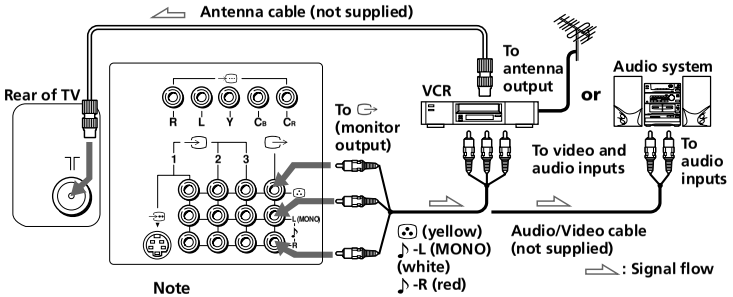
Connecting a camcorder/video game equipment using the → (video input) jacks



Notes

- You can also connect video equipment to the → 1, 2 or 3 (video input) jacks at the rear of your TV.
- If both → (S video input) and → 3 (video input) at the front of your TV are input at the same time, the → (S video input) is automatically selected. To view the video input to → 3 (video input), disconnect the S video cable.
- Do not connect video equipment to the → 3 (video input) jacks at the front and the rear of your TV at the same time; otherwise the picture will not be displayed properly on the screen.

Connecting audio/video equipment using the → (monitor output) jacks



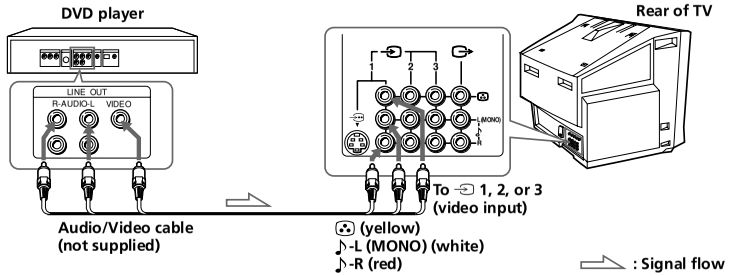
Note

- If you select "DVD" on your TV screen, no signal will be output at the → (monitor output) jacks (see page 11).

continued

Connecting optionals components (continued)

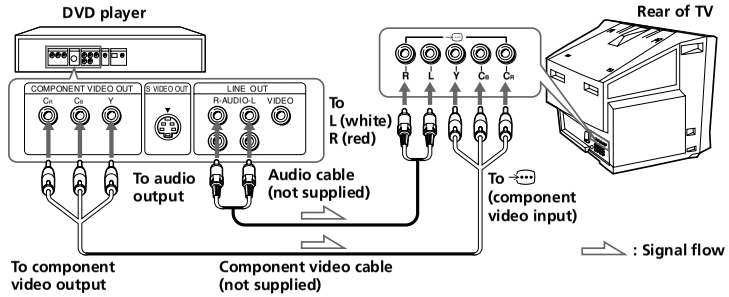
Connecting a DVD player using the → (video input) jacks



Connecting a DVD player using the → (component video input) jacks

1 Connect R and L under → (component video input) on your TV to the LINE OUT, AUDIO R and L output connectors on your DVD player.

2 Using a component video cable, connect Y, C_B, and C_R under → (component video input) on your TV to the COMPONENT VIDEO OUT Y, C_B, and C_R output connectors on your DVD player.



Notes

- Some DVD player terminals may be labeled differently:

Connect	To (on the DVD player)
Y (green)	Y
C_B (blue)	C_b, B-Y or P_B
C_R (red)	C_r, R-Y or P_R

- Since the high quality pictures on a DVD disc contain a lot of information, picture noise may appear. In this case, adjust the sharpness ("SHARP") in the "ADJUST" menu of the "PICTURE MODE" menu (see page 24).
- Connect your DVD player directly to your TV. Connecting the DVD player through other video equipment will cause unwanted picture noise.

KV-XA29M60/XA29M84
RM-954 RM-953

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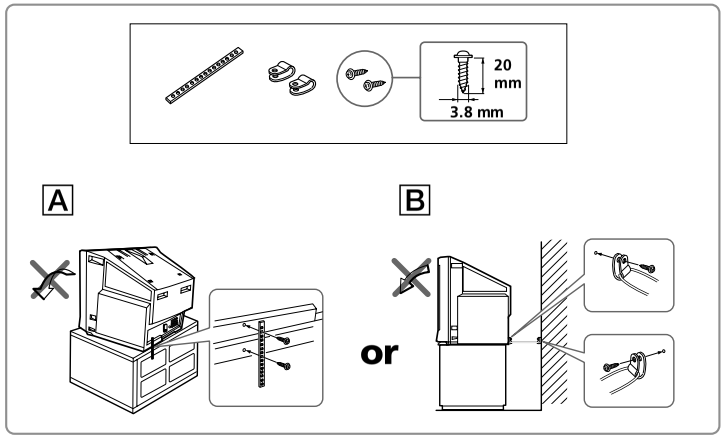
Securing the TV

To prevent the TV from falling, secure the TV using one of the following methods:

A With the supplied screws, attach the band to the TV stand and to the rear of the TV using the provided hole.

or

B Put the cord or chain through the clamps to secure the TV against a wall or pillar.

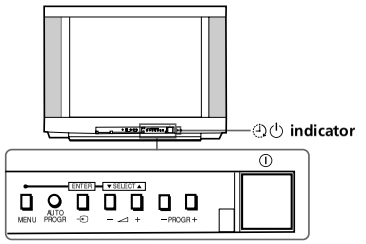


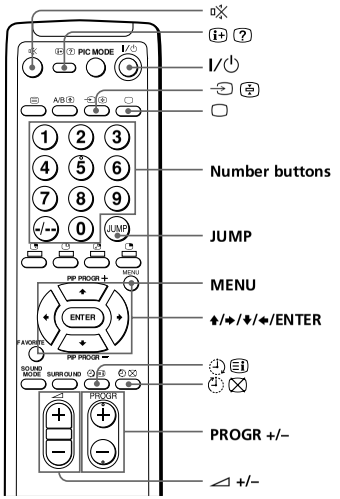
Note

- Use only the supplied screws. Use of other screws may damage the TV.

Watching the TV

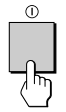
This section explains various functions and operations available while watching the TV. Most operations can be done using the remote.





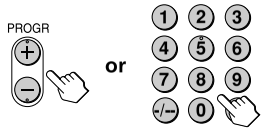
1 Press ⏻ to turn on the TV.

When the TV is in the standby mode (the ⏻ indicator on the TV is lit red), press I/⏻ on the remote or PROGR +/– on the TV.



2 Press PROGR +/– or number buttons to select the program number.

For double digit numbers, press -/--, then the number (e.g., for 25, press -/--, then 2 and 5).



To select a program number quickly

(1) Press and hold PROGR +/–.
(2) Release PROGR +/– when the desired program number appears.

Note

- When you select a program number quickly, the picture may be disrupted. This does not indicate a malfunction.

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Additional tasks

To	Press
Turn off temporarily	I/⏻. The ⏻ indicator on the TV lights up red.
Turn off completely	⏻ on the TV.
Adjust the volume	+/–.
Mute the sound	🔇.
Watch the video input (VCR, camcorder, etc.)	⏎ to select "VIDEO 1", "VIDEO 2" , "VIDEO 3"or "DVD". To return to the TV program, press 📺.
Jump back to the previous program number	JUMP.
Display the on-screen information*	ⓘ.

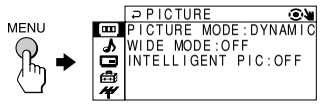
* The picture, sound, and either the program number or video input are displayed. The on-screen display for the picture and sound information disappears after about three seconds.

Changing the menu language

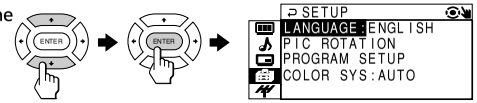
You can change the menu language as well as the on-screen language.

For details on how to use the menu, see **Introducing the menu system** on page 20.

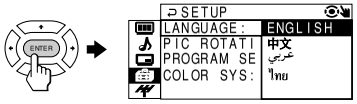
1 Press MENU.



2 Press ↑ or ↓ to select the "SETUP" icon (🧰), then press ENTER.

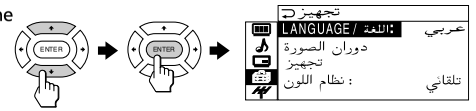


3 Make sure "LANGUAGE" is selected, then press ENTER.



4 Press ↑ or ↓ to select the desired language (e.g., " عربي "), then press ENTER.

The selected menu language appears.



To return to the normal screen

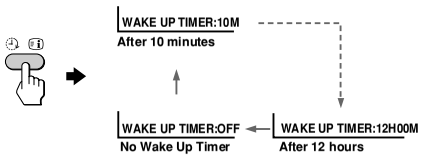
Press MENU.

continued

Setting the Wake Up timer

1 Press 🕘 until the desired period of time appears.

The Wake Up timer starts immediately after you have set it.



2 Select the program number or video input you want to display when you wake up.

3 Press ⏻ or set the Sleep timer if you want the TV to turn off automatically.

The 🕘 indicator lights up orange.

To cancel the Wake Up timer

Press 🕘 until "WAKE UP TIMER: OFF" appears or turn off the TV's main power.

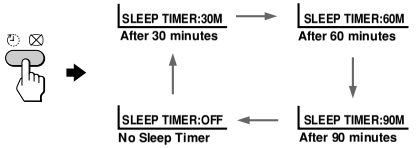
Note

- If no buttons or controls are pressed for more than two hours after the TV is turned on using the Wake Up timer, the TV automatically goes into the standby mode. To continue watching the TV, press any button or control on the TV or the remote.

Setting the Sleep timer

Press 🕘 until the desired period of time appears.

The Sleep timer starts immediately after you have set it.



To cancel the Sleep timer

Press 🕘 until "SLEEP TIMER: OFF" appears or turn the TV off.

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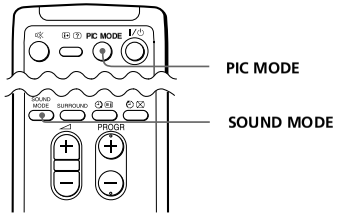
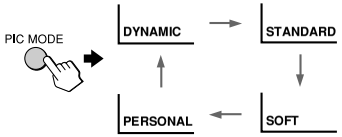
Selecting the picture and sound modes

You can select picture and sound modes and adjust the setting to your preference in "PERSONAL" option.



Selecting the picture mode

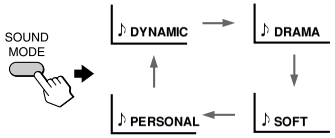
Press PIC MODE repeatedly until you get the desired picture mode.



Select	To
"DYNAMIC"	receive high contrast pictures.
"STANDARD"	receive normal contrast pictures.
"SOFT"	receive mild pictures.
"PERSONAL"	receive the last adjusted picture setting from the "ADJUST" option in the "PICTURE" menu (see page 23).

Selecting the sound mode

Press SOUND MODE repeatedly until you get the desired sound mode.



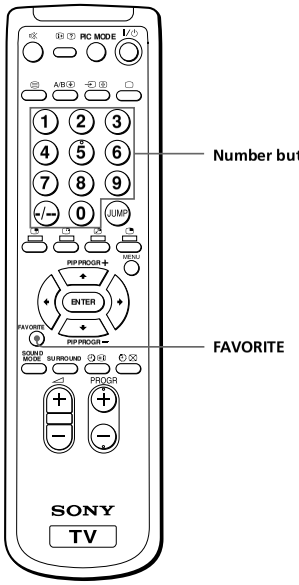
Select	To
"DYNAMIC"	listen to dynamic and clear sound that emphasizes the low and high tones.
"DRAMA"	listen to sound that emphasizes voice and high tones.
"SOFT"	receive soft sound.
"PERSONAL"	receive the last adjusted sound setting from the "ADJUST" option in the "SOUND" menu (see page 25).

Tip

- You can also set the picture and sound modes using the menu (see **Changing the "PICTURE" setting** on page 23 and **Changing the "SOUND" setting** on page 25).

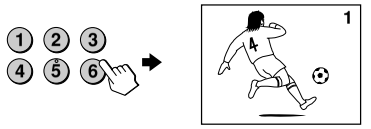
Viewing your favorite channels

You can display and select six of your favorite channels directly from your TV screen.



1 Press FAVORITE.

2 Press the number button from 1 to 6 to select the desired favorite channel.



Tip

- To program your favorite channels, see **Adjusting each program number settings (PROGRAM SETUP)** on page 29.

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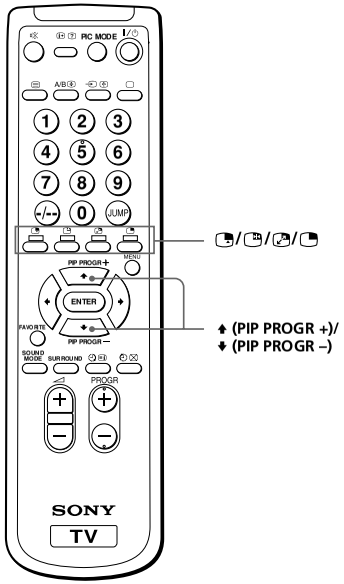
Watching two programs at the same time

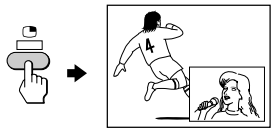
— PIP

With the Picture-in-Picture (PIP) feature, you can display a sub screen within the main picture of different TV programs or video inputs.



Displaying a sub screen

Press .



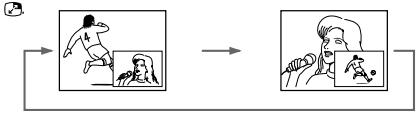
To return to the normal screen

Press (when displaying the sub screen).

continued

Watching two programs at the same time (continued)

Additional PIP tasks

To	Press
change the program number in the sub screen	(PIP PROGR +) or (PIP PROGR –).
select a video input in the sub screen	.
swap pictures between the main and sub screens	
freeze the sub screen	. To unfreeze the screen, press the button again.

Tips

- You can also display the sub screen and exchange pictures between the main and sub screens using the menu (see **Changing the "PIP" setting** on page 27).
- You can change the position of the sub screen (see **Changing the "PIP" setting** on page 27).

Notes

- When you display a video input on the sub screen at a faster/slower speed, the picture may be disrupted depending on the VCR type.
- If you display different color systems on the sub screen, the size of the sub screen may be different and the picture may be disrupted. This does not indicate a malfunction of the TV.

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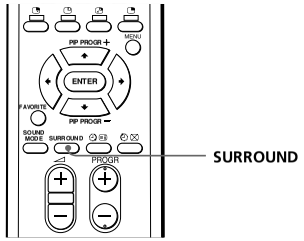
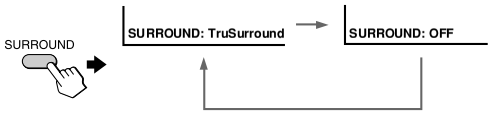
Listening with surround sound

The surround feature enables you to enjoy the sound effects of a concert hall or movie theater.



Press SURROUND repeatedly until you receive the desired surround sound.



Select	To
"TruSurround"	listen to the surround sound that spreads out to the rear of a room.
"OFF"	turn off the surround sound.

Tip

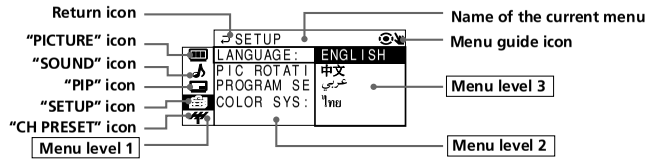
- You can also select the surround option using the menu (see **Changing the "SOUND" setting** on page 25).

The surround of your TV is categorized as TruSurround.

TruSurround™ is a trademark of SRS Labs, Inc. SRS and the SRS symbol are registered trademarks of SRS Labs, Inc. in the United States and selected foreign countries. SRS and TruSurround are incorporated under license from SRS Labs, Inc. and are protected under United States Patent Nos. 4,748,669 and 4,841,572 with numerous additional issued and pending foreign patents.

Introducing the menu system

The MENU button lets you open a menu and change the settings of your TV. Here's an overview of the menu system.



Level 1	Level 2	Level 3/Function
"PICTURE"	"PICTURE MODE"	Select the picture mode: "DYNAMIC"→ "STANDARD"→ "SOFT"→ "PERSONAL"→ "ADJUST"
	"ADJUST"	Adjust the "PERSONAL" option: "PICTURE" → "COLOR"→ "BRIGHT"→ "HUE"→ "SHARP"
	"WIDE MODE"	Change the picture size.
	"INTELLIGENT PIC"	Optimize picture quality.
"SOUND"	"SOUND MODE"	Select the sound mode: "DYNAMIC"→ "DRAMA" → "SOFT" → "PERSONAL" → "ADJUST"
	"ADJUST"	Adjust the "PERSONAL" option: "BASS" → "TREBLE"→ "BALANCE"→ "BBE"*
	"SURROUND"	Select the surround mode: "TruSurround" → "OFF"
	"INTELLIGENT VOL"	Adjust volume automatically.
"PIP"	"POSITION"	Change the position of the sub screen.
	"PIP"	Display a sub screen within the main picture.
	"SWAP"	Exchange pictures between main screen and sub screen.
"SETUP"	"LANGUAGE"	Change the menu language: "ENGLISH" →"中文"(Chinese) → "عربي"(Arabic) → "ไทย" (Thai)
	"PIC ROTATION"	Rotate the picture.
	"PROGRAM SETUP"	Adjust each program number settings.
	"COLOR SYS"	Change the color system: "AUTO" → "PAL" → "SECAM" → "NTSC3.58" → "NTSC4.43"

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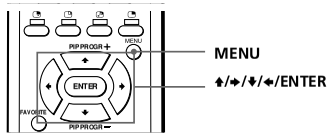
Level 1	Level 2	Level 3/Function
"CH PRESET"	"AUTO PROGRAM"	Preset channels automatically.
	"MANUAL PROGRAM"	Preset channels manually.
	"TV SYS"	Change the TV system: "B/G" → "I" → "D/K" → "M"

* The BBE is manufactured by Sony Corporation under license from BBE Sound, Inc. It is covered by U.S. Patent No. 4,638,258 and No. 4,482,866. The word "BBE" and the BBE symbol are the trademarks of BBE Sound, Inc.

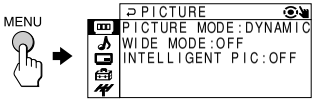
continued

How to use the menu

You can use the buttons on the remote and on the TV as well to display the menu and adjust the settings.

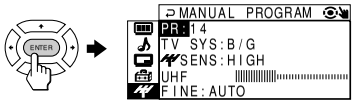


1 Press MENU to display the menu.



2 Press ↑ or ↓ to select the desired item.

3 Press ENTER to confirm your selection and go to the next menu level.



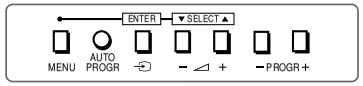
Other menu operations

To	Press
Adjust the setting value	↑,→,↓ or ←
Move to the next/previous menu level	→ or ←
Cancel the menu	MENU

Tips

- If you want to exit from Menu Level 2 to Menu Level 1, press ↑ or ↓ until the return icon (⮌) is highlighted, then press ENTER.
- Some of the menu items can be operated directly using the remote buttons.
- The MENU, ENTER, and SELECT ▼/▲ buttons on the TV can also be used for the operations above.

Front of TV



Note

- If more than 60 seconds elapse between entries, the menu screen automatically disappears.

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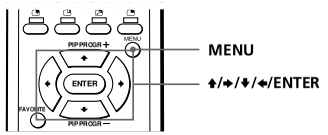
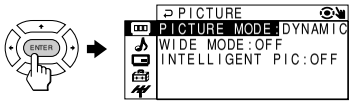
Changing the "PICTURE" setting

The "PICTURE" menu allows you to change the picture settings.

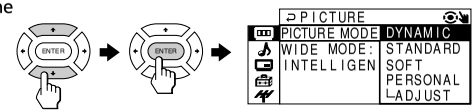


1 Press MENU.

2 Make sure the "PICTURE" icon ( ) is selected, then press ENTER.



3 Press ↑ or ↓ to select the desired item (e.g., "PICTURE MODE"), then press ENTER.



Select	To
"PICTURE MODE"	choose either "DYNAMIC", "STANDARD", "SOFT", "PERSONAL"*, or "ADJUST".
"WIDE MODE"	change the picture size when receiving wide-mode (16:9) picture signal. Press ↑ or ↓ to select "ON", then press ENTER. To cancel, select "OFF", then press ENTER.
"INTELLIGENT PIC"	optimize picture quality. Press ↑ or ↓ to select "ON", then press ENTER. To cancel, select "OFF", then press ENTER.

* When the "PERSONAL" mode is selected, you can receive the last adjusted picture settings from the "ADJUST" option (see page 24).

Note

- For details on the options under "PICTURE MODE", see page 13.

To return to the normal screen

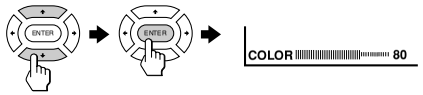
Press MENU.

continued

Changing the "PICTURE" setting (continued)

Adjusting the "ADJUST" items under "PICTURE MODE"

1 Press ↑ or ↓ to select the desired item (e.g., "COLOR"), then press ENTER.



2 Adjust the value according to the following table, then press ENTER.

For	Press ↓/← to	Press ↑/→ to
"PICTURE"	decrease picture contrast	increase picture contrast
"COLOR"	decrease color intensity	increase color intensity
"BRIGHT"	darken the picture	brighten the picture
"HUE"*	increase red picture tones	increase green picture tones
"SHARP"	soften the picture	sharpen the picture

* You can adjust "HUE" for the NTSC color system only.

3 Repeat the above steps to adjust other items.

The adjusted settings will be received when you select "PERSONAL".

Tip

- For details on the menu system and how to use the menu, refer to **Introducing the menu system** on page 20.

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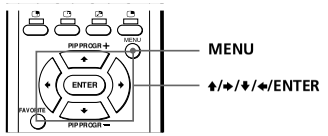
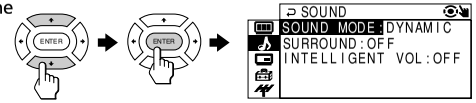
Changing the “SOUND” setting



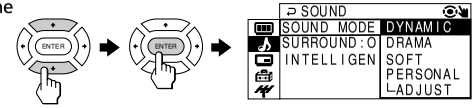
The “SOUND” menu allows you to change the sound settings.

1 Press MENU.

2 Press ▲ or ▼ to select the “SOUND” icon (♪), then press ENTER.



3 Press ▲ or ▼ to select the desired item (e.g., “SOUND MODE”), then press ENTER.



Select	To
“SOUND MODE”	choose either “DYNAMIC”, “DRAMA”, “SOFT”, “PERSONAL”*, or “ADJUST”.
“SURROUND”	choose either “TruSurround” or “OFF”.
“INTELLIGENT VOL”	adjust the volume of all program numbers and video inputs automatically. Press ▲ or ▼ to select “ON”, then press ENTER. To cancel, select “OFF”, then press ENTER.

* When the “PERSONAL” mode is selected, you can received the last adjusted sound settings from the “ADJUST” option (see page 26).

Tip

- For details on the options under “SOUND MODE” and “SURROUND”, see pages 13 and 17 respectively.

To return to the normal screen

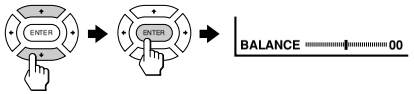
Press MENU.

continued

Changing the “SOUND” setting (continued)

Adjusting the “ADJUST” items under “SOUND MODE”

1 Press ▲ or ▼ to select the desired item (e.g., “BALANCE”), then press ENTER.



2 Adjust the value according to the following table, then press ENTER.

For	Press ▼/◆ to	Press ▲/● to
“BASS”	decrease the bass	increase the bass
“TREBLE”	decrease the treble	increase the treble
“BALANCE”	increase the left speaker’s volume	increase the right speaker’s volume
“BBE”	select “HIGH” for higher enhancement of sound clarity; select “LOW” for lower enhancement of sound clarity; select “OFF” to turn off the BBE sound	

3 Repeat the above steps to adjust other items.

The adjusted settings will be received when you select “PERSONAL”.

Tip

- For details on the menu system and how to use the menu, refer to **Introducing the menu system** on page 20.

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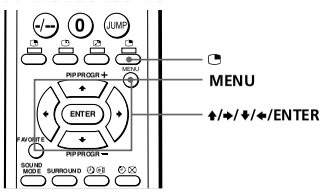
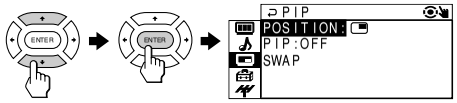
Changing the "PIP" setting

The "PIP" menu allows you to display a sub screen, change the sub screen position and exchange pictures between the main and sub screens.

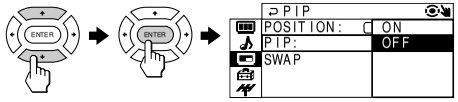


1 Press MENU.

2 Press ↑ or ↓ to select the "PIP" icon ( ), then press ENTER.



3 Press ↑ or ↓ to select the desired item (e.g., "PIP"), then press ENTER.



Select	To
"POSITION"	change the position of the sub screen. Press ↑ or ↓ to select the desired position, then press ENTER.
"PIP"	display a sub screen within the main picture. Press ↑ or ↓ to select "ON", then press ENTER. To cancel, press or select "PIP : OFF", then press ENTER.
"SWAP"	exchange pictures between main screen and sub screen.

To return to the normal screen

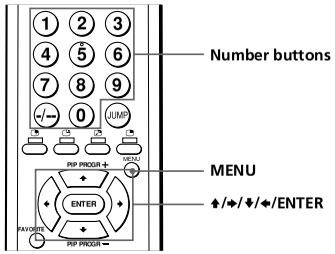
Press MENU.

Tip

- For details on the menu system and how to use the menu, refer to **Introducing the menu system** on page 20.

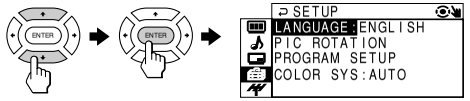
Changing the "SETUP" setting

The "SETUP" menu allows you to change the menu language, adjust the picture position, adjust the program number setting and select color system.

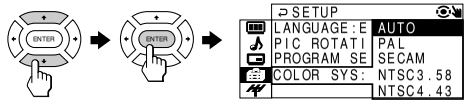


1 Press MENU.

2 Press ↑ or ↓ to select "SETUP" icon ( ), then press ENTER.



3 Press ↑ or ↓ to select the desired item (e.g., "COLOR SYS"), then press ENTER.



Select	To
"LANGUAGE"	change the menu language (see **Changing the menu language** on page 11).
"PIC ROTATION"	adjust the picture position when it is not aligned to the TV screen. Press ↑, →, ↓ or ← to adjust the picture position, then press ENTER.
"PROGRAM SETUP"	adjust each program number settings. (see **Adjusting each program number settings (PROGRAM SETUP)** on page 29).
"COLOR SYS"	change the color system. Normally, set this to "AUTO".

To return to the normal screen

Press MENU.

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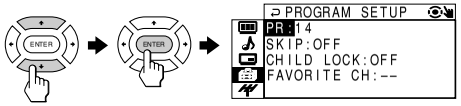
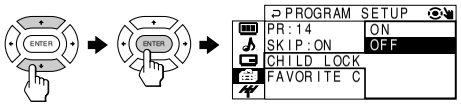
Adjusting each program number settings (PROGRAM SETUP)

1 Select "PROGRAM SETUP" from the "SETUP" menu.

2 Select "PR" and press ENTER. Press ↑ or ↓ to select the desired program number you want to adjust, then press ENTER.



3 Press ↑ or ↓ to select the desired item (e.g., "CHILD LOCK"), then press ENTER.



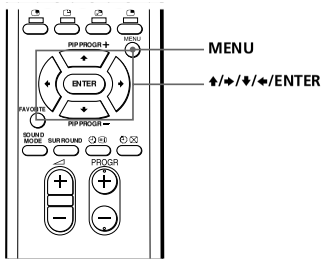
Select	To
"PR"	select the desired program number.
"SKIP"	skip unwanted or unused program number. Press ↑ or ↓ to select "ON", then press ENTER. To cancel, select "OFF", then press ENTER.
"CHILD LOCK"	prevent children from watching this selected program number. Press ↑ or ↓ to select "ON", then press ENTER. The lock symbol (🔒) appears on the screen. To cancel, select "OFF", then press ENTER. If you preset a locked program number, that program number will be unlocked automatically.
"FAVORITE CH"	program favorite channels for direct selection. Press ↑ or ↓ to select one of the six favorite channel numbers (if you decide not to make any changes, select " ↩ "), then press ENTER. To view the selected favorite channel, refer page 14.

4 To continue adjusting other program number, press ↑ or ↓ to select "PR", then repeat step 2 and 3.

To return to the normal screen

Press MENU.

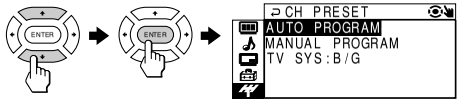
Changing the Channel Preset ("CH PRESET") setting



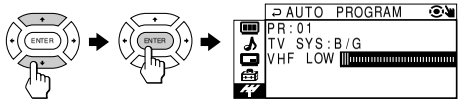
The "CH PRESET" menu allows you to adjust the setup of your TV. For example, you can receive a channel with a weak signal that fails to be tuned in by automatic presetting.

1 Press MENU.

2 Press ↑ or ↓ to select the "CH PRESET" icon ( ), then press ENTER.



3 Press ↑ or ↓ to select the desired item (e.g., "AUTO PROGRAM"), then press ENTER.



Select	To
"AUTO PROGRAM"	preset channels automatically.
"MANUAL PROGRAM"	preset channels manually. See **Presetting channels manually** on page 31.
"TV SYS"	change the TV system. Press ↑ or ↓ to select either "B/G", "I", "D/K" or "M", then press ENTER.

To return to the normal screen

Press MENU.

Tip

- For details on the menu system and how to use the menu, refer to **Introducing the menu system** on page 20.

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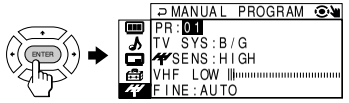
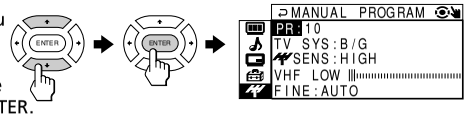
Presetting channels manually

1 After selecting "MANUAL PROGRAM", select the program number to which you want to preset a channel.

(1) Make sure "PR" is selected , then press ENTER.



(2) Press ↑ or ↓ until the program number you want to preset (e.g., program number "10") appears on the menu, then press ENTER.

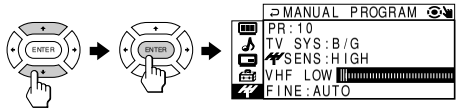


Tip

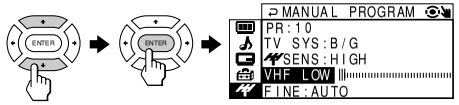
• You can also select the program number with the PROGR +/– or number buttons.

2 Select the desired channel.

(1) Make sure either "VHF LOW", "VHF HIGH" or "UHF" is selected, then press ENTER.

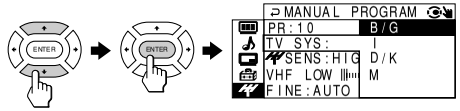


(2) Press ↑ or ↓ until the desired channel picture appears on the TV screen, then press ENTER.

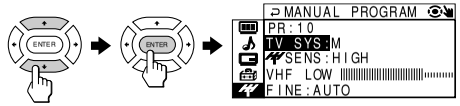


3 If the sound of the desired channel is abnormal, select the appropriate TV system.

(1) Press ↑ or ↓ to select "TV SYS", then press ENTER.



(2) Press ↑ or ↓ until the sound becomes normal (e.g., "M"), then press ENTER.

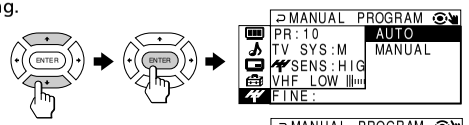


continued

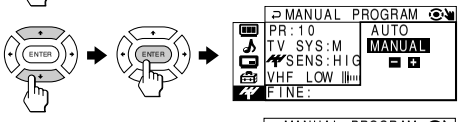
Changing the Channel Preset ("CH PRESET") setting (continued)

4 If you are not satisfied with the picture and sound quality, you may improve them by using fine tuning.

(1) Press ↑ or ↓ to select "FINE", then press ENTER.

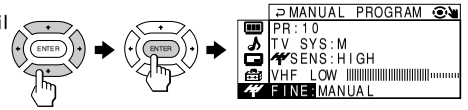


(2) Press ↑ or ↓ to select "MANUAL", then press ENTER.



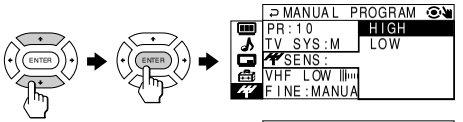
(3) Press ↑, →, ↓ or ← until the picture and sound quality are optimal, then press ENTER.

The + or – icon on the menu flashes while tuning.

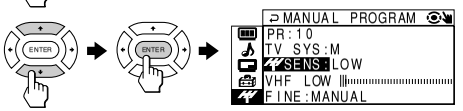


5 If the TV signal is too strong and the picture is distorted, you may reduce the TV receiving sensitivity.

(1) Press ↑ or ↓ to select "SENS", then press ENTER.



(2) Press ↑ or ↓ to select "LOW", then press ENTER.



To return to the normal screen

Press MENU.

Notes

• If you preset a locked program number ("CHILD LOCK"), that particular program number will be unlocked automatically (see page 29).

• The TV system ("TV SYS"), "SENS" and the fine tuning ("FINE") settings are memorized for each program number.

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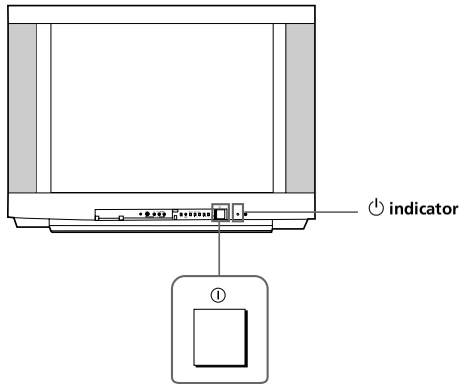
Self-diagnosis function

Your TV is equipped with a self-diagnosis function. If there is a problem with your TV, the ⏻ indicator flashes red. The number of times the ⏻ indicator flashes indicates the possible causes.

Front of TV



1 Check that the ⏻ indicator flashes red a number of times between 3-second intervals.

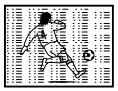
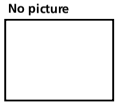
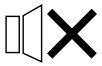
2 Count the number of times the ⏻ indicator flashes.

3 Press ⏻ (main power) to turn off your TV.

4 Inform your nearest Sony service center about the number of times the ⏻ indicator flashes.
Be sure to note the model name and serial number located on the rear of your TV.

Troubleshooting

If you find any problem while viewing your TV, please check the following guide. If any problem persists, contact your Sony dealer.

Symptom	Possible cause	Solutions	Page
Snowy picture 	• Connection is loose or the cable is damaged.	• Check the antenna cable and connection on the TV, VCR and on the wall.	4
	• Channel presetting is inappropriate or incomplete.	• Display the "CH PRESET" menu and select "MANUAL PROGRAM" to preset the channel again.	30
Noisy sound	• The antenna type is inappropriate.	• Check the antenna type (VHF/UHF). Contact a Sony dealer for advice.	–
	• The antenna direction is inappropriate.	• Adjust the antenna direction. Contact a Sony dealer for advice.	–
	• Signal transmission is low.	• Try using a booster.	–
Distorted picture	• Broadcast signals are too strong.	• Display the "CH PRESET" menu and select "MANUAL PROGRAM". Then, select "SENS: LOW".	30
		• Turn off or disconnect the booster if it is in use.	–
Noisy sound			
Good picture	• The TV system setting or channel presetting is inappropriate or incomplete.	• If the sound of all the channels are noisy, display the "CH PRESET" menu and check the TV system ("TV SYS") setting, then select "AUTO PROGRAM" to preset the channels again.	30
Noisy sound		• If the sound of some channels are noisy, select the channel, then display the "CH PRESET" menu and select the appropriate TV system ("TV SYS").	30
No picture 	• The power cord, antenna or VCR is not connected.	• Check the power cord, antenna and the VCR connections.	4
	• The TV is not turned on.	• Press I/⏻ (power).	10
No sound 		• Press ⏻ (main power) on the TV to turn off the TV for about five seconds, then turn it on again.	10

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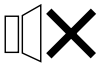
Troubleshooting (continued)

Symptom	Possible cause	Solutions	Page
Good picture No sound 	• The volume level is too low.	• Press + to increase the volume level.	11
	• The sound is muted.	• Press to cancel the muting.	11
Dotted lines or stripes	• There is local interference from cars, neon signs, hair dryers, power generators, etc.	• Do not use a hair dryer or other equipment near the TV. • Adjust the antenna direction for minimum interference. Contact a Sony dealer for advice.	– –
Double images or "ghosts"	• Broadcast signals are reflected by nearby mountains or buildings.	• Use a highly directional antenna. • Use the fine tuning ("FINE") function.	– 32
	• The antenna direction is inappropriate.	• Adjust the antenna direction. Contact a Sony dealer for advice.	–
	• Use of a booster is inappropriate.	• Turn off or disconnect the booster if it is in use.	–
No color	• The color level setting is too low.	• Display the "PICTURE" menu and select "ADJUST" of "PICTURE MODE", then adjust the "COLOR" level.	23
	• The color system setting is inappropriate.	• Display the "SETUP" menu and check the color system ("COLOR SYS") setting (usually set this to "AUTO").	28
	• The antenna direction is inappropriate.	• Adjust the antenna direction. Contact a Sony dealer for advice.	–
Abnormal color patches	• The magnetic disturbance from external speakers or other equipment, or the direction of the earth's magnetic field may affect the TV.	• Keep external speakers or other electrical equipment away from the TV. Do not move the TV while the TV is turned on. Press ⏻ (main power) on the TV to turn off the TV for about five minutes, then turn it on again.	–

Symptom	Possible cause	Solutions	Page
"100" appears on the top of the screen and no Teletext display. (Not used for this model)	• The channel carries no Teletext broadcast.	—	18
Teletext display is incomplete (picture snowy or double images). (Not used for this model)	• Connection is loose or the cable is damaged.	• Check the antenna cable and connection on the TV, VCR and on the wall.	4
	• The antenna direction is inappropriate.	• Adjust the antenna direction. Contact a Sony dealer for advice.	–
	• Signal transmission is too low.	• Try using a booster. • Use the fine tuning ("FINE") function.	– 32
Picture slant	• The magnetic disturbance from external speakers or other equipment, or the direction of the earth's magnetic field may affect the TV.	• Keep external speakers or other electrical equipment away from the TV. • Display the "SETUP" menu and adjust "PIC ROTATION" so that the picture is aligned to the TV screen.	– 28
Lines moving across the TV screen.	• There is interference from external sources, e.g., heavy machineries, nearby broadcast station.	• Use the fine tuning ("FINE") function.	32
The ⏻ indicator on your TV flashes red a number of times between 3-second intervals.	• Your TV may need service.	• Contact your nearest Sony service center.	33
TV cabinet creaks.	• Changes in room temperature sometimes make the TV cabinet expand or contract, making a noise. This does not indicate a malfunction.	—	–
A "boom" sound is heard when the TV is turned on.	• The TV's demagnetizing function is working. This does not indicate a malfunction.	—	–

continued

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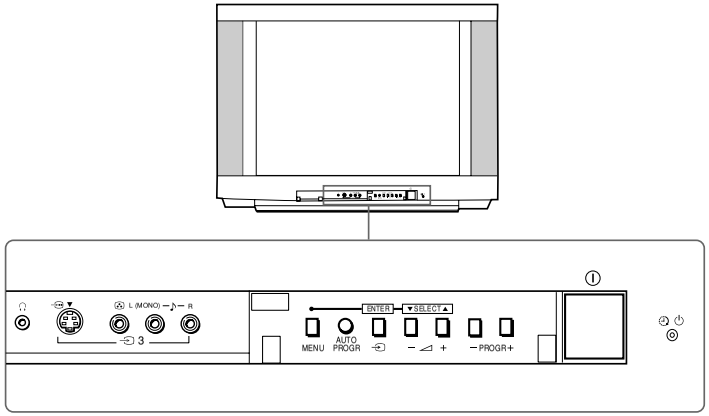
Overview of controls

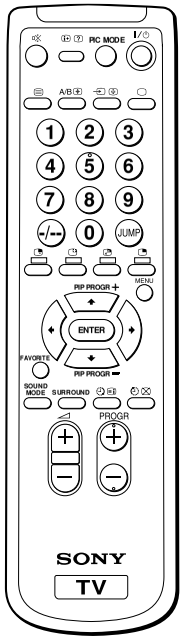
TV front panel



Button	Function	Page
AUTO PROGR	Preset channels automatically.	5
⏻	Turn off completely or turn on the TV.	10
PROGR +/–	Select program number.	10
⏻	Standby indicator.	10
+/–	Adjust volume.	11
	Select TV or video input.	11
	Wake Up indicator.	12
MENU	Display the menu.	22
	Headphones jack.	–

continued

Remote control



The names/symbols of buttons on the remote are indicated in different colors to represent the available functions.

Label color	Button function
White	For general TV operations
Green	For Teletext operations
Yellow	For PIP operations

Button	Function	Page
I/⏻	Turn off temporarily or turn on the TV.	10
PROGR +/–	Select program number.	10
0 – 9, -/--	Input numbers.	10
+/–	Adjust volume.	11
	Select TV or video input.	11
	Display the TV program.	11
	Mute the sound.	11
	Display on-screen information.	11
JUMP	Jump to previous program number.	11
Timer operations		
	Set TV to turn on automatically.	12
	Set TV to turn off automatically.	12
PIC MODE	Select picture mode.	13
SOUND MODE	Select sound mode.	13
FAVORITE	Display favorite channels.	14
PIP operations		
	Display a sub screen.	15
	Swap main and sub screens.	16
	Freeze the sub screen.	16
	Select video input for the sub screen.	16
/(PIP PROGR +/–)	Change program number in the sub screen.	16
SURROUND	Select surround mode.	17
Stereo/bilingual operations (not used for used this model)		
A/B	Select stereo/bilingual mode.	–
Teletext operations (not used for this model)		
	Display Teletext broadcast.	18
	Enlarge the Teletext display.	19
	Reveal concealed information.	19
	Stop Teletext page from scrolling.	19
	Display Teletext service contents.	19
	Show TV screen while waiting for Teletext page.	19
0 – 9	Input Teletext page number.	19
PROGR +/–	Display the next or previous page.	19
(red, green, yellow, blue)	Access a FASTEXT menu.	19
Menu operations		
MENU	Display the menu.	22
/ENTER	Select, adjust and confirm selected item.	22

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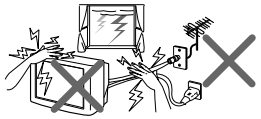
The operating instruction mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

GENERAL 2-2 (KV-XA29M60)

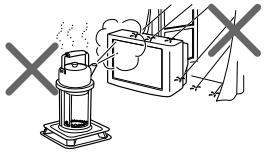
WARNING

- Dangerously high voltages are present inside the TV.
- TV operating voltage: 220 – 240 V AC.

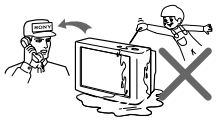


For your own safety, do not touch any part of the TV, the power cord and the antenna cable during lightning storms.

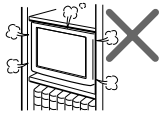
For children's safety, do not leave children alone with the TV. Do not allow children to climb onto it.



To prevent fire or shock hazard, do not expose the TV to rain or moisture.

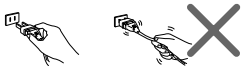


Do not operate the TV if any liquid or solid object falls into it. Have it checked immediately by qualified personnel only.



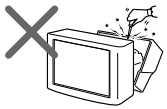
Do not block the ventilation openings of the TV. Do not install the TV in a confined space, such as a bookcase or built-in cabinet.

Clean the TV with a dry and soft cloth.
Do not use benzine, thinner, or any other chemicals to clean the TV. Do not scratch the picture tube.

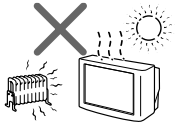


Pull the power cord out by the plug. Do not pull the power cord itself. Disconnect the TV before moving it or if you are not going to use it for several days.

Do not plug in too many appliances to the same power socket. Do not damage the power cord.

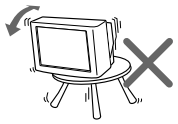


Do not open the cabinet and the rear cover of the TV as high voltages and other hazards are present inside the TV. Refer servicing and disposal of the TV to qualified personnel.

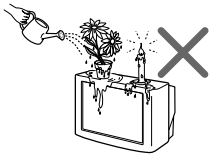


Your TV is recommended for home use only.
Do not use the TV in any vehicle or where it may be subject to excessive dust, heat, moisture or vibrations.

WARNING (continued)



Do not install the TV in an unstable position.
Use a proper TV stand.



Do not place any objects on the TV.

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Getting Started

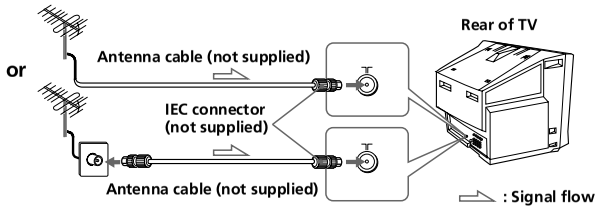
CAUTION

- Do not connect the power cord until you have completed making all other connections; otherwise a minimum leakage current might flow through the antenna and other terminals to ground.
- To avoid battery leakage and damage to the remote, remove the batteries from the remote if you are not going to use it for several days. If any liquid that leaks from the batteries touches you, immediately wash it away with water.

Step 1

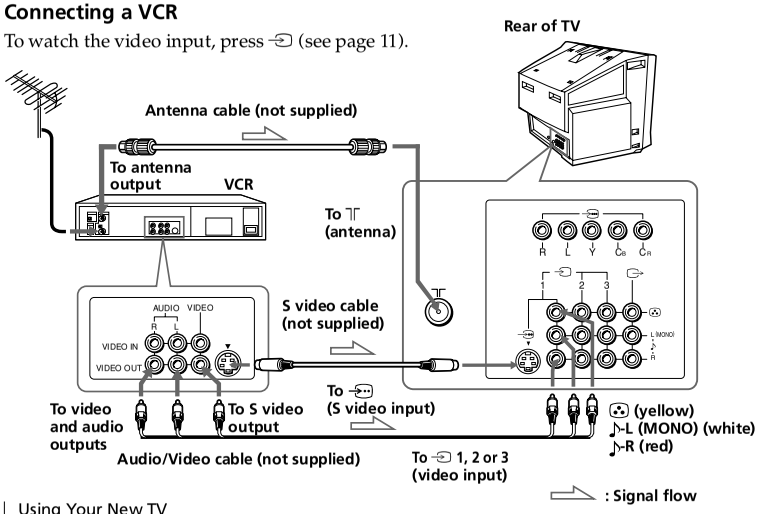
Connect the antenna

If you wish to connect a VCR, see the **Connecting a VCR** diagram below.



Connecting a VCR

To watch the video input, press → (see page 11).

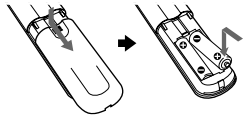


Notes

- If you connect a monaural VCR, connect the yellow plug to (the yellow jack) and the black plug to L (MONO) (the white jack).
- If you connect a VCR to the (antenna) terminal, preset the signal output from the VCR to the program number 0 on the TV.
- If both (S video input) and 1 (video input) at the rear of your TV are input at the same time, the (S video input) is automatically selected. To view the video input to 1 (video input), disconnect the S video cable.
- Do not connect video equipment to the 3 (video input) jacks at the front and the rear of your TV at the same time; otherwise the picture will not be displayed properly on the screen.
- When no signal is input from the connected video equipment, the TV screen becomes blue.

Step 2

Insert the batteries into the remote



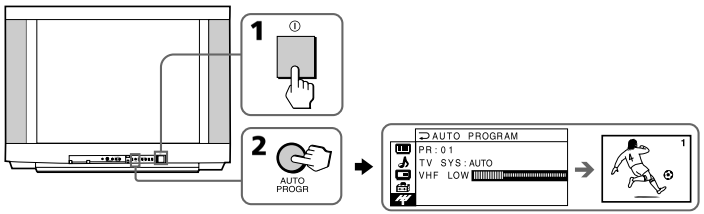
Note

- Do not use old batteries nor use different types of batteries together.

Step 3

Preset the channels automatically

Front of TV



Tips

- If you want to stop the automatic channel presetting, press MENU.
- If your TV has preset an unwanted channel or cannot preset a particular channel, then preset your TV manually (see page 27).

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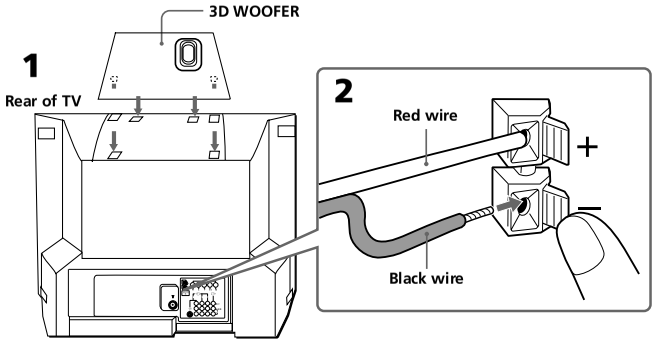
Connecting the 3D WOOFER

(Not used for this model)

You can enjoy high quality sound by connecting the 3D WOOFER.



1 Attach the 3D WOOFER into the footholds on the top of your TV.

2 Connect the wires to the 3D WOOFER (8Ω) terminals at the rear of your TV. The red wire should be connected to the ⊕ red terminal and the black wire to the ⊖ black terminal.

Notes

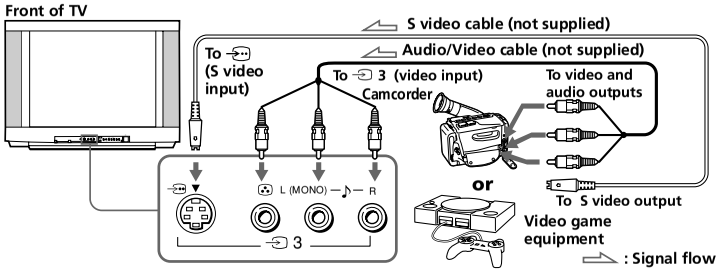
- Connect only the supplied 3D WOOFER; otherwise your TV may malfunction.
- Unplug your TV from the wall outlet when connecting the 3D WOOFER.
- To prevent a malfunction caused by a short circuit of the terminals, make sure that none of the 3D WOOFER wire strands stick out, making contact with the neighbouring speaker terminal.

Connecting optional components

You can connect optional audio/video components, such as a VCR, multi disc player, DVD, camcorder, video game or stereo system.

To watch the video input of the connected equipment, press ⊖ (see page 11).

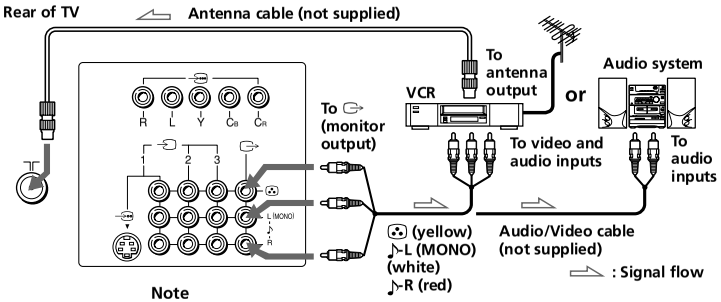
Connecting a camcorder/video game equipment using the ⊖ (video input) jacks



Notes

- You can also connect video equipment to the ⊖ 1 or 2 (video input) jacks at the rear of your TV.
- If both (S video input) and ⊖ 3 (video input) at the front of your TV are input at the same time, the (S video input) is automatically selected. To view the video input to ⊖ 3 (video input), disconnect the S video cable.
- Do not connect video equipment to the ⊖ 3 (video input) jacks at the front and the rear of your TV at the same time; otherwise the picture will not be displayed properly on the screen.

Connecting audio/video equipment using the ⊕ (monitor output) jacks



Note

- If you select "DVD" on your TV screen, no signal will be output at the ⊕ (monitor output) jacks (see page 11).

continued

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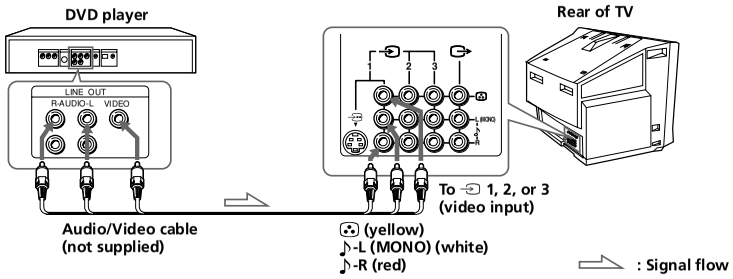
Connecting Optional Components (continued)

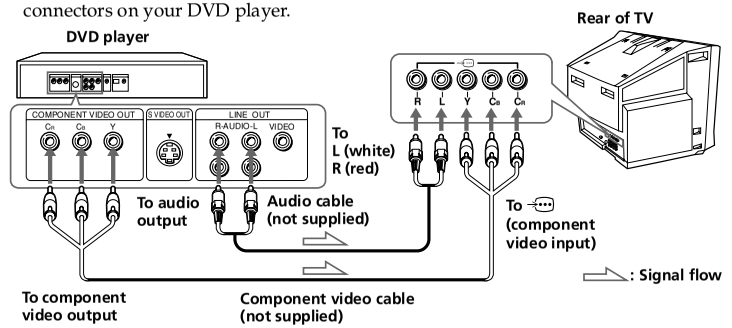
Connecting a DVD player using the (video input) jacks



Connecting a DVD player using the (component video input) jacks

1 Connect R and L under (component video input) on your TV to the LINE OUT, AUDIO R and L output connectors on your DVD player.

2 Using a component video cable, connect Y, C_B, and C_R under (component video input) on your TV to the COMPONENT VIDEO OUT Y, C_B, and C_R output connectors on your DVD player.



Notes

- Some DVD player terminals may be labeled differently:

Connect	To (on the DVD player)
Y (green)	Y
C_B (blue)	C_b, B-Y or P_B
C_R (red)	C_r, R-Y or P_R

- Since the high quality pictures on a DVD disc contain a lot of information, picture noise may appear. In this case, adjust the sharpness ("SHARP") in the "ADJUST" menu of the "PICTURE MODE" menu (see page 21).
- Connect your DVD player directly to your TV. Connecting the DVD player through other video equipment will cause unwanted picture noise.

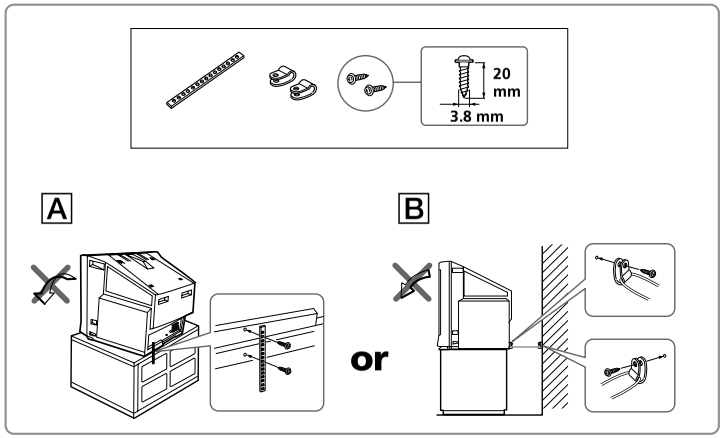
Securing the TV

To prevent the TV from falling, secure the TV using one of the following methods:

A With the supplied screws, attach the band to the TV stand and to the rear of the TV using the provided hole.

or

B Put the cord or chain through the clamps to secure the TV against a wall or pillar.



Note

- Use only the supplied screws. Use of other screws may damage the TV.

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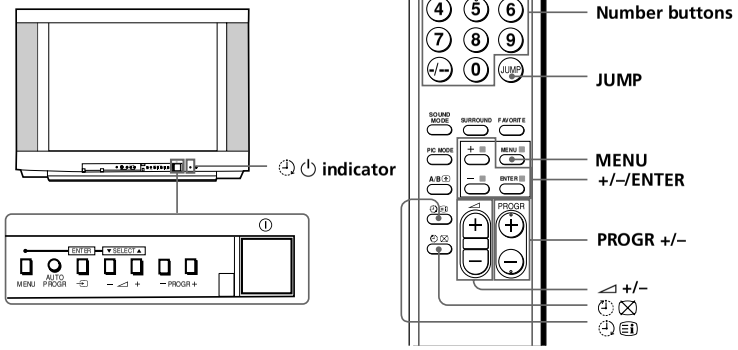
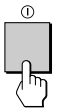
Watching the TV

This section explains various functions and operations available while watching the TV. Most operations can be done using the remote.



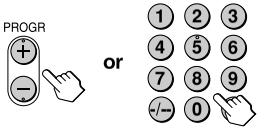
1 Press ⏻ to turn on the TV.

When the TV is in the standby mode (the ⏻ indicator on the TV is lit red), press I/⏻ on the remote or PROGR +/– on the TV.



2 Press PROGR +/– or number buttons to select the program number.

For double digit numbers, press -/--, then the number (e.g., for 25, press -/--, then 2 and 5).



To select a program number quickly

(1) Press and hold PROGR +/–.
(2) Release PROGR +/– when the desired program number appears.

Note

- When you select a program number quickly, the picture may be disrupted. This does not indicate a malfunction.

Additional tasks

To	Press
Turn off temporarily	I/⏻. The ⏻ indicator on the TV lights up red.
Turn off completely	⏻ on the TV.
Adjust the volume	+/–.
Mute the sound	🔇.
Watch the video input (VCR, camcorder, etc.)	⏎ to select "VIDEO 1", "VIDEO 2" , "VIDEO 3" or "DVD". To return to the TV program, press ▢ (or ⏎ on the TV).
Jump back to the previous program number	JUMP.
Display the on-screen information*	ⓘ.

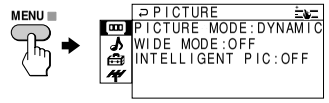
* The picture, sound, and either the program number or video input are displayed. The on-screen display for the picture and sound information disappears after about three seconds.

Changing the menu language

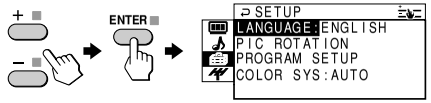
You can change the menu language as well as the on-screen language.

For details on how to use the menu, see **Introducing the menu system** on page 18.

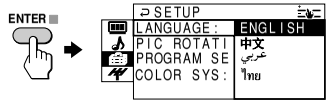
1 Press MENU.



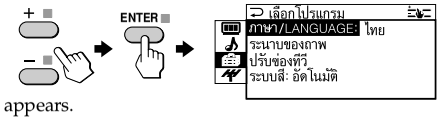
2 Press + or – to select the "SETUP" icon (), then press ENTER.



3 Make sure "LANGUAGE" is selected, then press ENTER.



4 Press + or – to select the desired language (e.g, "ไทย"), then press ENTER.



The selected menu language appears.

To return to the normal screen

Press MENU.

continued

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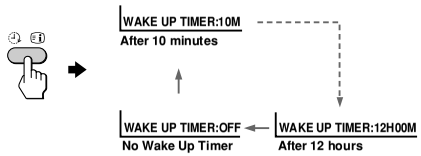
Setting the Wake Up timer

1 Press ◴ until the desired period of time appears.

The Wake Up timer starts immediately after you have set it.



2 Select the program number or video input you want to display when you wake up.

3 Press ⏻ or set the Sleep timer if you want the TV to turn off automatically.

The ◴ indicator on the TV lights up orange.

To cancel the Wake Up timer

Press ◴ until "WAKE UP TIMER: OFF" appears or turn off the TV's main power.

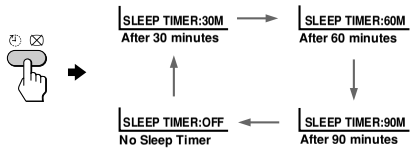
Note

- If no buttons or controls are pressed for more than two hours after the TV is turned on using the Wake Up timer, the TV automatically goes into the standby mode. To continue watching the TV, press any button or control on the TV or the remote.

Setting the Sleep timer

Press ◴ until the desired period of time appears.

The Sleep timer starts immediately after you have set it.

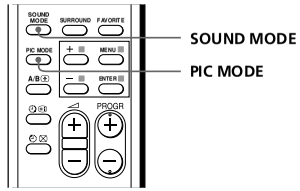


To cancel the Sleep timer

Press ◴ until "SLEEP TIMER: OFF" appears or turn the TV off.

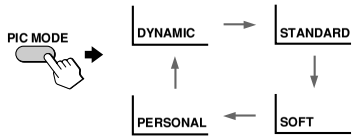
Selecting the picture and sound modes

You can select picture and sound modes and adjust the setting to your preference in "PERSONAL" option.



Selecting the picture mode

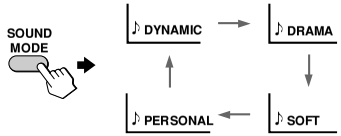
Press PIC MODE repeatedly until you get the desired picture mode.



Select	To
"DYNAMIC"	receive high contrast pictures.
"STANDARD"	receive normal contrast pictures.
"SOFT"	receive mild pictures.
"PERSONAL"	receive the last adjusted picture setting from the "ADJUST" option in the "PICTURE" menu (see page 20).

Selecting the sound mode

Press SOUND MODE repeatedly until you get the desired sound mode.



Select	To
"DYNAMIC"	listen to dynamic and clear sound that emphasizes the low and high tones.
"DRAMA"	listen to sound that emphasizes voice and high tones.
"SOFT"	receive soft sound.
"PERSONAL"	receive the last adjusted sound setting from the "ADJUST" option in the "SOUND" menu (see page 22).

Tip

- You can also set the picture and sound modes using the menu (see **Changing the "PICTURE" setting** on page 20 and **Changing the "SOUND" setting** on page 22).

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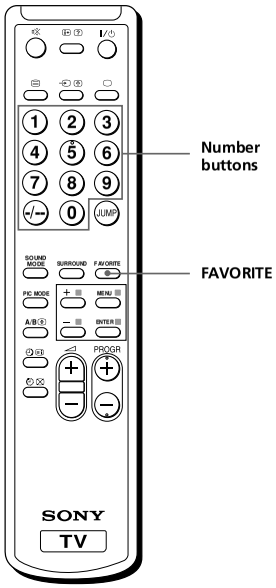
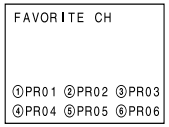
Viewing your favorite channels

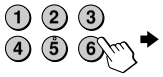
You can display and select six of your favorite channels directly from your TV screen.



1 Press FAVORITE.



2 Press the number button from 1 to 6 to select the desired favorite channel.

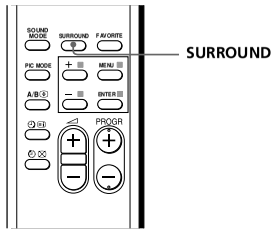


Tip

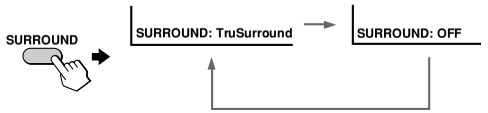
- To program your favorite channels, see **Adjusting each program number settings (PROGRAM SETUP)** on page 25.

Listening with surround sound

The surround feature enables you to enjoy the sound effects of a concert hall or movie theater.



Press SURROUND repeatedly until you receive the desired surround sound.



Select	To
"TruSurround"	listen to the surround sound that spreads out to the rear of a room.
"OFF"	turn off the surround sound.

Tip

- You can also select the surround option using the menu (see **Changing the "SOUND" setting** on page 22).

The surround of your TV is categorized as TruSurround.

TruSurround™ is a trademark of SRS Labs, Inc. SRS and the SRS symbol are registered trademarks of SRS Labs, Inc. in the United States and selected foreign countries. SRS and TruSurround are incorporated under license from SRS Labs, Inc. and are protected under United States Patent Nos. 4,748,669 and 4,841,572 with numerous additional issued and pending foreign patents.

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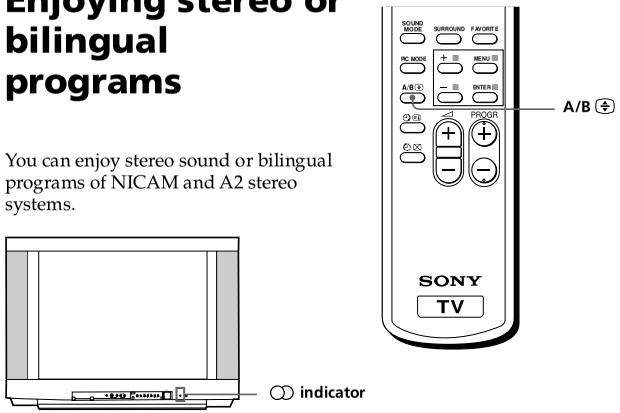
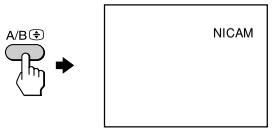
Enjoying stereo or bilingual programs

You can enjoy stereo sound or bilingual programs of NICAM and A2 stereo systems.



Press A/B repeatedly until you receive the sound you want.

The on-screen display changes to show the selected sound. The ◌◌ indicator on the TV lights up red when receiving any stereo or bilingual program.



When receiving a NICAM program

Broadcasting	On-screen display (Selected sound)
NICAM stereo	NICAM (Stereo sound) → MONO (Regular sound)
NICAM bilingual	NICAM MAIN (Main sound) → NICAM SUB (Sub sound) → MONO (Regular sound)
NICAM monaural	NICAM MAIN (Main sound) → MONO (Regular sound)

When receiving an A2 program

Broadcasting	On-screen display (Selected sound)
A2 stereo	MONO (Regular sound) → STEREO (Stereo sound)
A2 bilingual	MAIN (Main sound) → SUB (Sub sound)

Receiving area for NICAM and A2 programs

System	Receiving area
NICAM	Hong Kong, Singapore, New Zealand, Malaysia, Thailand, etc.
A2	Australia, Malaysia, Thailand, etc.

Notes

- If the signal is very weak, the sound becomes monaural automatically.
- If the stereo sound is noisy when receiving a NICAM program, select "MONO". The sound becomes monaural, but the noise is reduced.

If the sound is distorted when receiving a monaural program through the ⅂ (antenna) terminal

Press A/B repeatedly until "MONO" appears on the screen.

To cancel the monaural sound setting, press A/B again until "AUTO" appears on the screen.

MONO → AUTO

Notes

- The "MONO" or "AUTO" setting is memorized for each program number.
- You cannot receive stereo broadcast signal when the TV is in the "MONO" setting. Normally set the TV to "AUTO".

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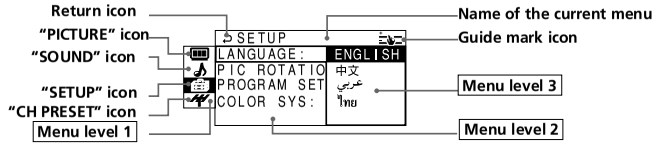
Introducing the menu system

The MENU button lets you open a menu and change the settings of your TV. Here's an overview of the menu system.

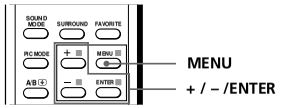


Level 1	Level 2	Level 3/Function
"PICTURE"	"PICTURE MODE"	Select the picture mode: "DYNAMIC" → "STANDARD" → "SOFT" → "PERSONAL" → "ADJUST"
	"ADJUST"	Adjust the "PERSONAL" option: "PICTURE" → "COLOR" → "BRIGHT" → "HUE" → "SHARP"
	"WIDE MODE"	Change the picture size.
	"INTELLIGENT PIC"	Optimize picture quality.
"SOUND"	"SOUND MODE"	Select the sound mode: "DYNAMIC" → "DRAMA" → "SOFT" → "PERSONAL" → "ADJUST"
	"ADJUST"	Adjust the "PERSONAL" option: "BASS" → "TREBLE" → "BALANCE" → "BBE"*
	"SURROUND"	Select the surround mode: "TruSurround" → "OFF"
	"INTELLIGENT VOL"	Adjust volume automatically.
"SETUP"	"LANGUAGE"	Change the menu language: "ENGLISH" → "中文" (Chinese) → "عربي" (Arabic) → "ไทย" (Thai)
	"PIC ROTATION"	Rotate the picture.
	"PROGRAM SETUP"	Adjust each program number settings.
	"COLOR SYS"	Change the color system: "AUTO" → "PAL" → "SECAM" → "NTSC3.58" → "NTSC4.43"
"CH PRESET"	"AUTO PROGRAM"	Preset channels automatically.
	"MANUAL PROGRAM"	Preset channels manually.
	"TV SYS"	Change the TV system: "B/G" → "I" → "D/K" → "M"

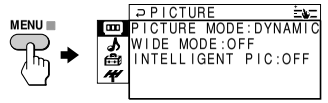
* The BBE is manufactured by Sony Corporation under license from BBE Sound, Inc. It is covered by U.S. Patent No. 4,638,258 and No. 4,482,866. The word "BBE" and the BBE symbol are the trademarks of BBE Sound, Inc.

How to use the menu

You can use the buttons on the remote and on the TV as well to display the menu and adjust the settings.



1 Press MENU to display the menu.



2 Press + or – to select the desired item.

3 Press ENTER to confirm your selection and go to the next menu level.

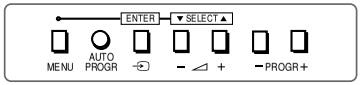
Other menu operations

To	Press
Adjust the setting value	+/–
Return to the previous menu level	ENTER
Cancel the menu	MENU

Tips

- To return from Menu Level 2 to Menu Level 1, press +/– to select the return icon (⮌), then press ENTER.
- Some of the menu items can be operated directly using the remote buttons.
- The MENU, ENTER, and SELECT ▼/▲ buttons on the TV can also be used for the operations above.

Front of TV



Note

- If more than 60 seconds elapse between entries, the menu screen automatically disappears.

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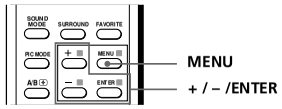
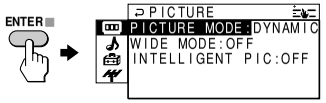
Changing the "PICTURE" setting



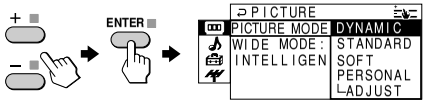
The "PICTURE" menu allows you to change the picture settings.

1 Press MENU.

2 Make sure the "PICTURE" icon ( ) is selected, then press ENTER.



3 Press + or – to select the desired item (e.g., "PICTURE MODE"), then press ENTER.



Select	To
"PICTURE MODE"	choose either "DYNAMIC", "STANDARD", "SOFT", "PERSONAL"*, or "ADJUST".
"WIDE MODE"	change the picture size when receiving wide-mode (16:9) picture signal. Press + or – to select "ON", then press ENTER. To cancel, select "OFF", then press ENTER.
"INTELLIGENT PIC"	optimize picture quality. Press + or – to select "ON", then press ENTER. To cancel, select "OFF", then press ENTER.

* When the "PERSONAL" mode is selected, you can receive the last adjusted picture settings from the "ADJUST" option (see page 21).

Note

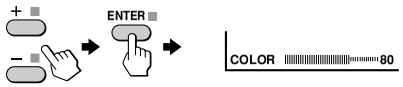
- For details on the options under "PICTURE MODE", see page 13.

To return to the normal screen

Press MENU.

Adjusting the "ADJUST" items under "PICTURE MODE"

1 Press + or – to select the desired item (e.g., "COLOR"), then press ENTER.



2 Adjust the value according to the following table, then press ENTER.

For	Press – to	Press + to
"PICTURE"	decrease picture contrast	increase picture contrast
"COLOR"	decrease color intensity	increase color intensity
"BRIGHT"	darken the picture	brighten the picture
"HUE"*	increase red picture tones	increase green picture tones
"SHARP"	soften the picture	sharpen the picture

* You can adjust "HUE" for the NTSC color system only.

3 Repeat the above steps to adjust other items.

The adjusted settings will be received when you select "PERSONAL".

Tip

- For details on the menu system and how to use the menu, refer to **Introducing the menu system** on page 18.

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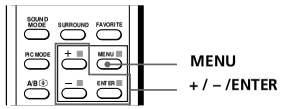
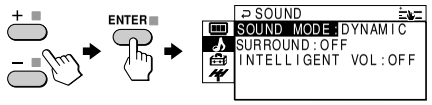
Changing the "SOUND" setting



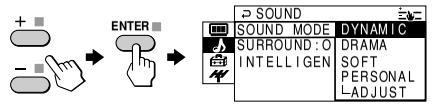
The "SOUND" menu allows you to change the sound settings.

1 Press MENU.

2 Press + or – to select the "SOUND" icon (♪), then press ENTER.



3 Press + or – to select the desired item (e.g., "SOUND MODE"), then press ENTER.



Select	To
"SOUND MODE"	choose either "DYNAMIC", "DRAMA", "SOFT", "PERSONAL"*, or "ADJUST".
"SURROUND"	choose either "TruSurround" or "OFF".
"INTELLIGENT VOL"	adjust the volume of all program numbers and video inputs automatically. Press + or – to select "ON", then press ENTER. To cancel, select "OFF", then press ENTER.

* When the "PERSONAL" mode is selected, you can receive the last adjusted sound settings from the "ADJUST" option (see page 23).

Tip

- For details on the options under "SOUND MODE" and "SURROUND", see pages 13 and 15 respectively.

To return to the normal screen

Press MENU.

Adjusting the "ADJUST" items under "SOUND MODE"

1 Press + or – to select the desired item (e.g., "BALANCE"), then press ENTER.

2 Adjust the value according to the following table, then press ENTER.

For	Press – to	Press + to
"BASS"	decrease the bass	increase the bass
"TREBLE"	decrease the treble	increase the treble
"BALANCE"	increase the left speaker's volume	increase the right speaker's volume
"BBE"	select "HIGH" for higher enhancement of sound clarity; select "LOW" for lower enhancement of sound clarity; select "OFF" to turn off the BBE sound	

3 Repeat the above steps to adjust other items.

The adjusted settings will be received when you select "PERSONAL".

Tip

- For details on the menu system and how to use the menu, refer to **Introducing the menu system** on page 18.

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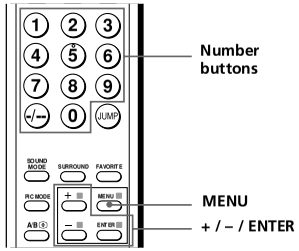
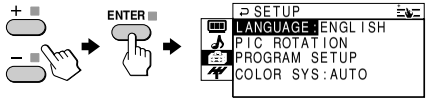
Changing the "SETUP" setting

The "SETUP" menu allows you to change the menu language, adjust the picture position, adjust the program number setting and select color system.

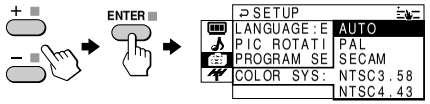


1 Press MENU.

2 Press + or – to select "SETUP" icon ( ), then press ENTER.



3 Press + or – to select the desired item (e.g., "COLOR SYS"), then press ENTER.



Select	To
"LANGUAGE"	change the menu language (see **Changing the menu language** on page 11).
"PIC ROTATION"	adjust the picture position when it is not aligned to the TV screen. Press + or – to adjust the picture position, then press ENTER.
"PROGRAM SETUP"	adjust each program number settings (see **Adjusting each program number settings (PROGRAM SETUP)** on page 25).
"COLOR SYS"	change the color system. Normally, set this to "AUTO".

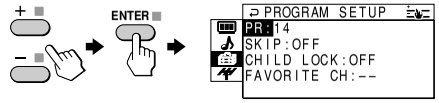
To return to the normal screen

Press MENU.

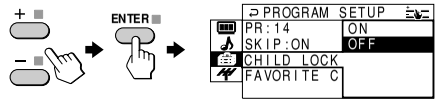
Adjusting each program number settings (PROGRAM SETUP)

1 Select "PROGRAM SETUP" from the "SETUP" menu.

2 Select "PR" and press ENTER. Press + or – to select the desired program number you want to adjust, then press ENTER.



3 Press + or – to select the desired item (e.g., "CHILD LOCK"), then press ENTER.



Select	To
"PR"	select the desired program number.
"SKIP"	skip unwanted or unused program number. Press + or – to select "ON", then press ENTER. To cancel, select "OFF", then press ENTER.
"CHILD LOCK"	prevent children from watching this selected program number. Press + or – to select "ON", then press ENTER. The lock symbol ( ) appears on the screen. To cancel, select "OFF", then press ENTER. If you preset a locked program number, that particular program number will be unlocked automatically.
"FAVORITE CH"	program favorite channels for direct selection. Press + or – to select one of the six favorite channel numbers (if you decide not to make any changes, select " ↩ "), then press ENTER. To view the selected favorite channel, refer page 14.

4 To continue adjusting other program number, press + or – to select "PR", then repeat step 2 and 3.

To return to the normal screen

Press MENU.

KV-XA29M60/XA29M84
RM-954 RM-953

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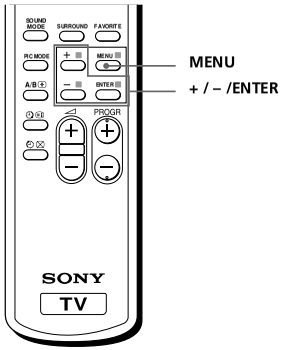
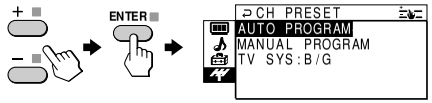
Changing the Channel Preset ("CH PRESET") setting

The "CH PRESET" menu allows you to adjust the setup of your TV. For example, you can receive a channel with a weak signal that fails to be tuned in by automatic presetting.

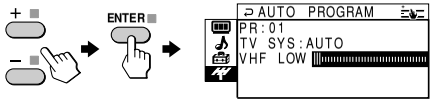


1 Press MENU.

2 Press + or – to select the "CH PRESET" icon (), then press ENTER.



3 Press + or – to select the desired item (e.g., "AUTO PROGRAM"), then press ENTER.



Select	To
AUTO PROGRAM	preset channels automatically.
MANUAL PROGRAM	preset channels manually (see **Presetting channels manually** on page 27).
TV SYS	change the TV system. Press + or – to select either "B/G", "I", "D/K" or "M", then press ENTER.

To return to the normal screen

Press MENU.

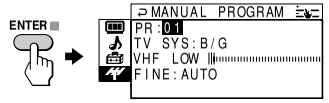
Tip

- For details on the menu system and how to use the menu, refer to **Introducing the menu system** on page 18.

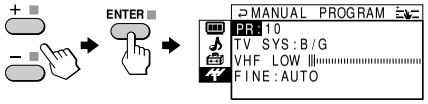
Presetting channels manually

1 After selecting "MANUAL PROGRAM", select the program number to which you want to preset a channel.

(1) Make sure "PR" is selected , then press ENTER.

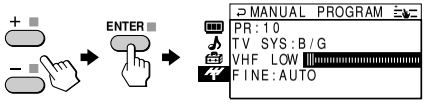


(2) Press + or – until the program number you want to preset (e.g., program number "10") appears on the menu, then press ENTER.

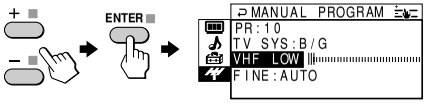


2 Select the desired channel.

(1) Make sure either "VHF LOW", "VHF HIGH" or "UHF" is selected, then press ENTER.

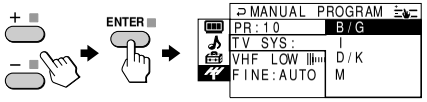


(2) Press + or – until the desired channel picture appears on the TV screen, then press ENTER.

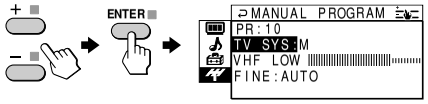


3 If the sound of the desired channel is abnormal, select the appropriate TV system.

(1) Press + or – to select "TV SYS", then press ENTER.



(2) Press + or – until the sound becomes normal (e.g., "M"), then press ENTER.



continued

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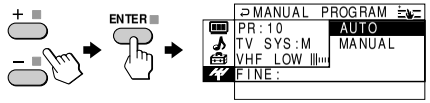
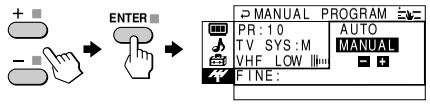
Changing the Channel Preset ("CH PRESET") setting (continued)

4 If you are not satisfied with the picture and sound quality, you may improve them by using fine tuning.

(1) Press + or – to select "FINE", then press ENTER.

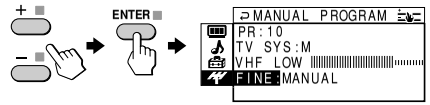


(2) Press + or – to select "MANUAL", then press ENTER.



(3) Press + or – until the picture and sound quality are optimal, then press ENTER.

The + or – icon on the menu flashes while tuning.



To return to the normal screen

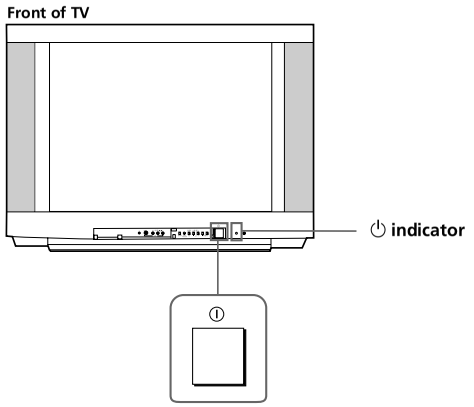
Press MENU.

Notes

- If you preset a locked program number ("CHILD LOCK"), that particular program number will be unlocked automatically (see page 25).
- The TV system ("TV SYS") and the fine tuning ("FINE") settings are memorized for each program number.

Self-diagnosis function

Your TV is equipped with a self-diagnosis function. If there is a problem with your TV, the ⏻ indicator flashes red. The number of times the ⏻ indicator flashes indicates the possible causes.



1 Check that the ⏻ indicator flashes red a number of times between 3-second intervals.

2 Count the number of times the ⏻ indicator flashes.

3 Press ⏻ (main power) to turn off your TV.

4 Inform your nearest Sony service center about the number of times the ⏻ indicator flashes.
Be sure to note the model name and serial number located on the rear of your TV.

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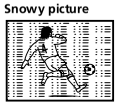
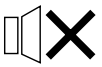
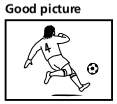
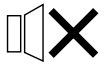
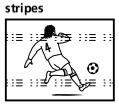
Troubleshooting

If you find any problem while viewing your TV, please check the following guide. If any problem persists, contact your Sony dealer .

Symptom	Possible cause	Solutions	Page
Snowy picture  Noisy sound	• Connection is loose or the cable is damaged.	• Check the antenna cable and connection on the TV, VCR and on the wall.	4
	• Channel presetting is inappropriate or incomplete.	• Display the “CH PRESET” menu and select “MANUAL PROGRAM” to preset the channel again.	27
	• The antenna type is inappropriate.	• Check the antenna type (“VHF”/“UHF”). Contact a Sony dealer for advice.	–
	• The antenna direction is inappropriate.	• Adjust the antenna direction. Contact a Sony dealer for advice.	–
	• Signal transmission is low.	• Try using a booster.	–
Distorted picture Noisy sound	• Broadcast signals are too strong.	• Turn off or disconnect the booster if it is in use.	–
Good picture Noisy sound	• The TV system setting or channel presetting is inappropriate or incomplete.	• If the sound of all the channels are noisy, display the “CH PRESET” menu and check the TV system (“TV SYS”) setting, then select “AUTO PROGRAM” to preset the channels again. • If the sound of some channels are noisy, select the channel, then display the “CH PRESET” menu and select the appropriate TV system (“TV SYS”).	26 26
No picture No sound 	• The power cord, antenna or VCR is not connected.	• Check the power cord, antenna and the VCR connections.	4
	• The TV is not turned on.	• Press I/⏻ (power). • Press ⏻ (main power) on the TV to turn off the TV for about five seconds, then turn it on again.	10 10

Symptom	Possible cause	Solutions	Page
Good picture  No sound 	• The volume level is too low.	• Press + to increase the volume level.	11
	• The sound is muted.	• Press to cancel the muting.	11
	• Broadcast signal has a transmission problem.	• Press A/B until a good sound is heard.	16
Dotted lines or stripes 	• There is local interference from cars, neon signs, hair dryers, power generators, etc.	• Do not use a hair dryer or other equipment near the TV. • Adjust the antenna direction for minimum interference. Contact a Sony dealer for advice.	– –
Double images or “ghosts”	• Broadcast signals are reflected by nearby mountains or buildings.	• Use a highly directional antenna. • Use the fine tuning (“FINE”) function.	– 28
	• The antenna direction is inappropriate.	• Adjust the antenna direction. Contact a Sony dealer for advice.	–
	• Use of a booster is inappropriate.	• Turn off or disconnect the booster if it is in use.	–
No color	• The color level setting is too low.	• Display the “PICTURE” menu and select “ADJUST” of “PICTURE MODE”, then adjust the “COLOR” level.	21
	• The color system setting is inappropriate.	• Display the “SETUP” menu and check the color system (“COLOR SYS”) setting (usually set this to “AUTO”).	24
	• The antenna direction is inappropriate.	• Adjust the antenna direction. Contact a Sony dealer for advice.	–
Abnormal color patches	• The magnetic disturbance from external speakers or other equipment, or the direction of the earth’s magnetic field may affect the TV.	• Keep external speakers or other electrical equipment away from the TV. Do not move the TV while the TV is turned on. Press ⏻ (main power) on the TV to turn off the TV for about five minutes, then turn it on again.	–
TV cannot receive stereo broadcast signal.	• The stereo reception setting is inappropriate.	• Press A/B until “AUTO” appears on the screen.	16

continued

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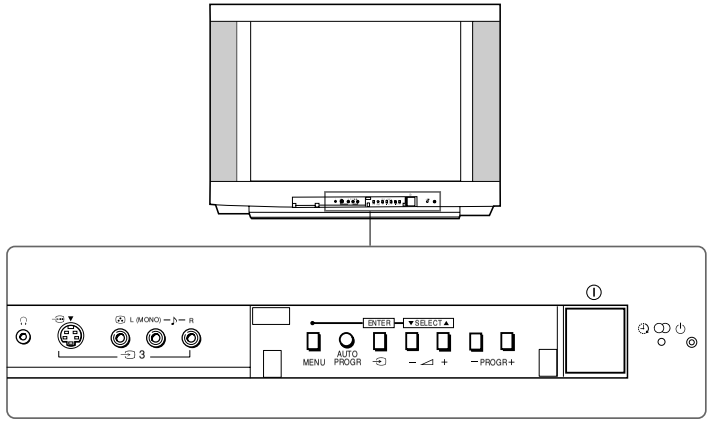
Symptom	Possible cause	Solutions	Page
Stereo broadcast sound switches on and off or is distorted. **or** **The sound switches between monaural and stereo frequently.**	• Connection is loose or the cable is damaged.	• Check the antenna cable and connection on the TV, VCR and on the wall.	4
	• The antenna direction is inappropriate.	• Adjust the antenna direction. Contact a Sony dealer for advice.	–
	• Broadcast signal has a transmission problem.	• Press A/B until a good sound is heard.	16
Picture slant	• The magnetic disturbance from external speakers or other equipment, or the direction of the earth's magnetic field may affect the TV.	• Keep external speakers or other electrical equipment away from the TV. • Display the "SETUP" menu and adjust "PIC ROTATION" so that the picture is aligned to the TV screen.	– 24
Lines moving across the TV screen.	• There is interference from external sources, e.g., heavy machineries, nearby broadcast station.	• Use the fine tuning ("FINE") function.	28
The ⏻ indicator on your TV flashes red a number of times between 3-second intervals.	• Your TV may need service.	• Contact your nearest Sony service center.	29
TV cabinet creaks.	• Changes in room temperature sometimes make the TV cabinet expand or contract, making a noise. This does not indicate a malfunction.	—	–
A "boom" sound is heard when the TV is turned on.	• The TV's demagnetizing function is working. This does not indicate a malfunction.	—	–

Overview of controls

TV front panel



Button	Function	Page
AUTO PROGR	Preset channels automatically.	5
⏻	Turn off completely or turn on the TV.	10
PROGR +/–	Select program number.	10
⏻	Standby indicator	10
+/–	Adjust volume.	11
	Select TV or video input.	11
	Wake Up indicator	12
	Stereo/bilingual indicator.	16
Menu operations		
MENU	Display the menu.	19
SELECT ▼/▲	Select and adjust items.	19
RETURN	Confirm selected items.	19
	Headphones jack.	–

continued

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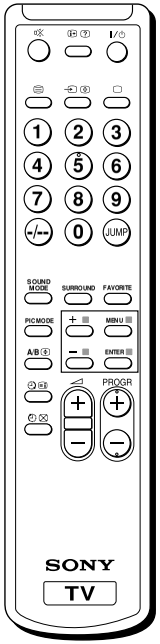
Overview of controls (continued)

Remote control



Names/symbols of buttons on the remote are indicated in different colors to represent the available functions.

Label color	Button function
White	For general TV operations
Green	For Teletext operations

Button	Function	Page
I/⏻	Turn off temporarily or turn on the TV.	10
PROGR +/–	Select program number.	10
0 – 9, -/--	Input numbers.	10
🔊 +/–	Adjust volume.	11
⇨	Select TV or video input.	11
▢	Display the TV program.	11
🔇	Mute the sound.	11
ⓘ	Display on-screen information.	11
JUMP	Jump to previous program number.	11
Timer operations		
🕓	Set TV to turn on automatically.	12
🕓	Set TV to turn off automatically.	12
PIC MODE	Select picture mode.	13
SOUND MODE	Select sound mode.	13
FAVORITE	Display favorite channels.	14
SURROUND	Select surround mode.	15
Stereo/bilingual operations		
A/B	Select stereo/bilingual mode.	16
Teletext operations (Not used for KV-XA34M60/XA29M60/XA25M63/XA25M60)		
☰	Display Teletext broadcast.	–
⇳	Enlarge the Teletext display.	–
?	Reveal concealed information.	–
⇳	Stop Teletext display from scrolling.	–
☰i	Display Teletext service contents.	–
⊠	Show TV screen while waiting for Teletext page.	–
0 – 9	Input Teletext page number.	–
PROGR +/–	Display the next or previous page.	–
■ (red, green, yellow, blue)	Access a Fastext menu	–
Menu operations		
MENU	Display the menu.	19
+ or –	Select and adjust item.	19
ENTER	Confirm selected item.	19

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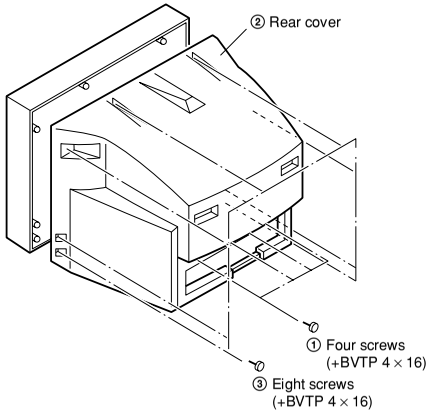
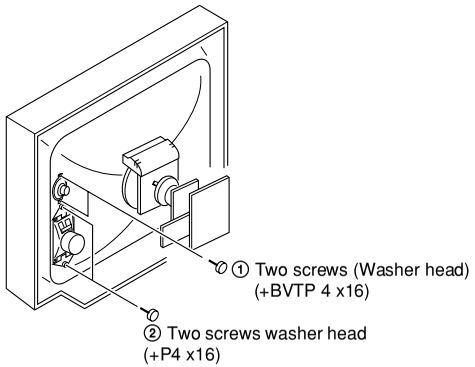
SECTION 2
DISASSEMBLY

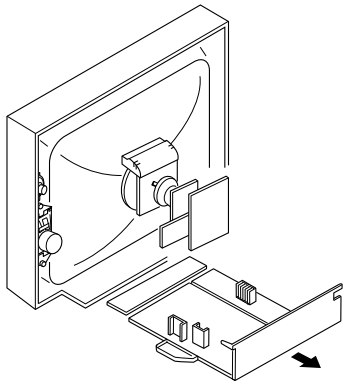
2-1. REAR COVER REMOVAL



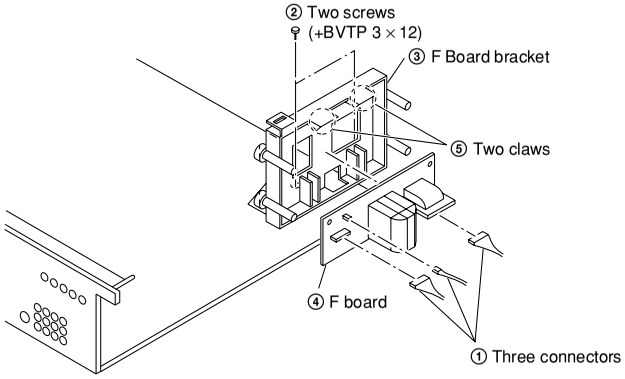
2-2. SPEAKER REMOVAL



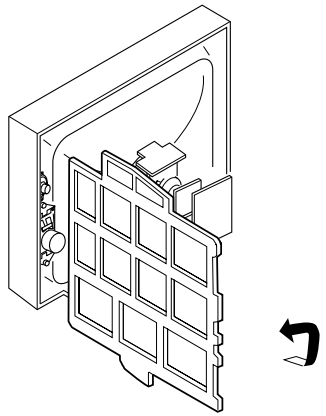
2-3. CHASSIS ASSY REMOVAL



2-4. F BRACKET REMOVAL



2-5. SERVICE POSITION



Note:

1. Disconnect the speaker connection on the right side.
2. Undress necessary wires that creates tension while placing the chassis into Service Position.

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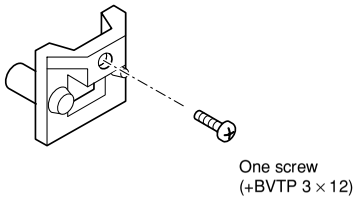
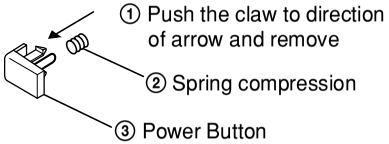
2-6. REPLACEMENT OF PARTS

2-6-1. Light Guide

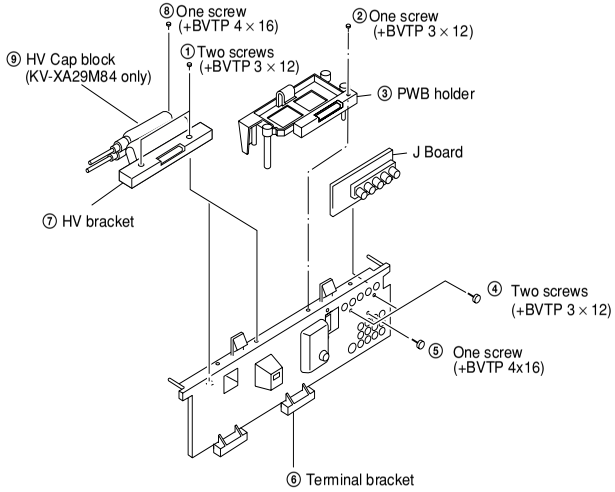
For replacement of light guide,unscrew them, exchange with new parts and fix them with screws respectively.



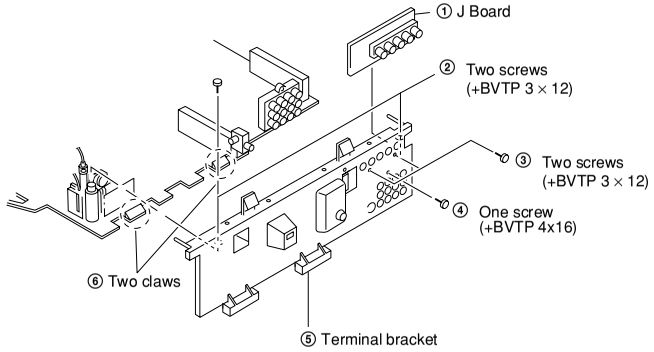
2-6-2. Power Button



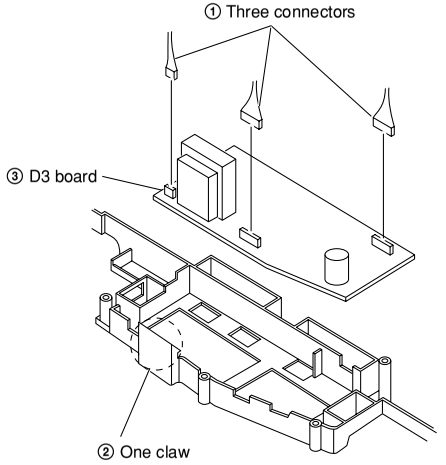
2-7. HV CAP BLOCK (KV-XA29M84 ONLY), PWB HOLDER AND J BOARD REMOVAL



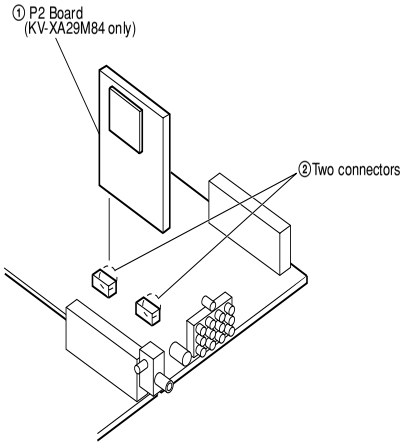
2-8. TERMINAL BRACKET REMOVAL



2-9. D3 BOARD REMOVAL



2-10. P2 BOARD (KV-XA29M84 ONLY) REMOVAL



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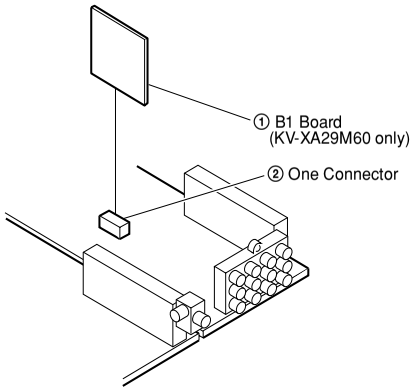
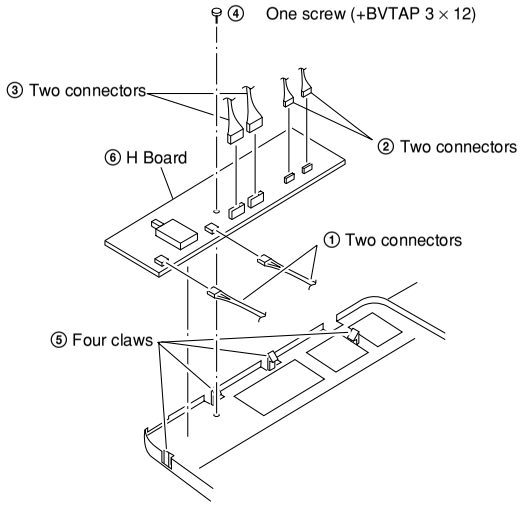
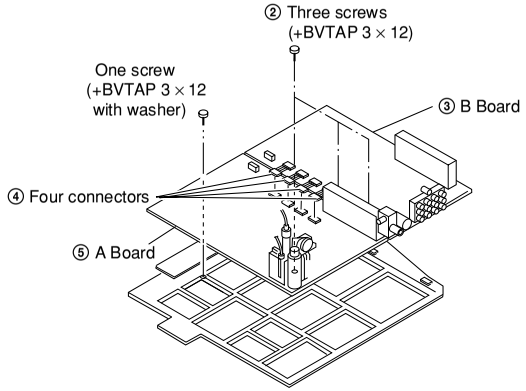
2-11. B1 BOARD (KV-XA29M60) REMOVAL



2-12. H BOARD REMOVAL



2-13. A AND B BOARDS REMOVAL



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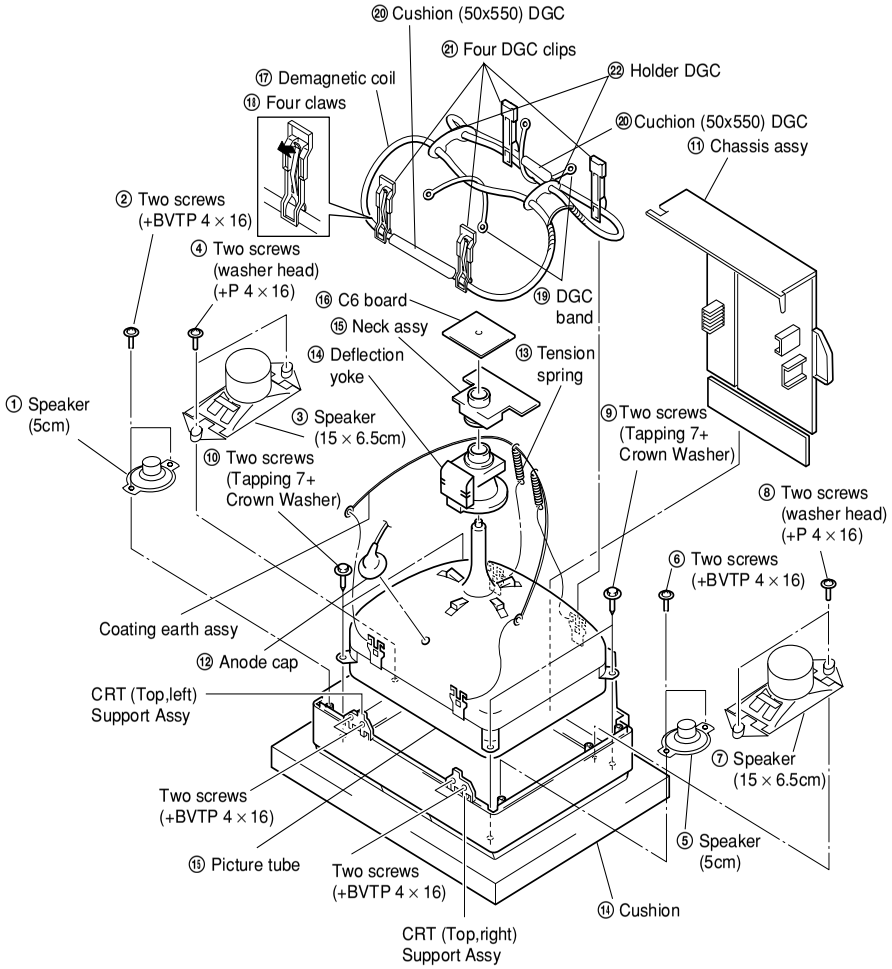
2-14. PICTURE TUBE REMOVAL

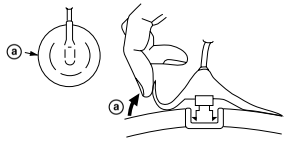
Note:
Please remove necessary CRT support located on top left, top right, prior to removing the CRT.


⑳ Cushion (50x550) DGC
㉑ Four DGC clips
㉒ Holder DGC
⑰ Demagnetic coil
⑱ Four claws
⑳ Cuchion (50x550) DGC
⑪ Chassis assy
② Two screws (+BVTP 4 × 16)
④ Two screws (washer head) (+P 4 × 16)
⑲ DGC band
⑯ C6 board
⑮ Neck assy
⑭ Deflection yoke
⑬ Tension spring
① Speaker (5cm)
③ Speaker (15 × 6.5cm)
⑨ Two screws (Tapping 7+ Crown Washer)
⑩ Two screws (Tapping 7+ Crown Washer)
⑧ Two screws (washer head) (+P 4 × 16)
⑥ Two screws (+BVTP 4 × 16)
Coating earth assy
⑫ Anode cap
CRT (Top,left) Support Assy
⑦ Speaker (15 × 6.5cm)
Two screws (+BVTP 4 × 16)
⑤ Speaker (5cm)
⑮ Picture tube
Two screws (+BVTP 4 × 16)
⑭ Cushion
CRT (Top,right) Support Assy

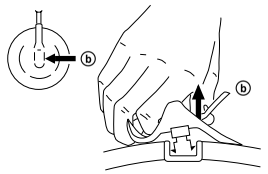
• REMOVAL OF ANODE-CAP

NOTE : After removing the anode, short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT.

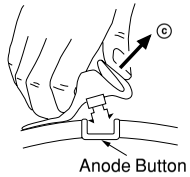
• REMOVING PROCEDURES



① **Turn up one side of the rubber cap in the direction indicated by the arrow ⓐ.**



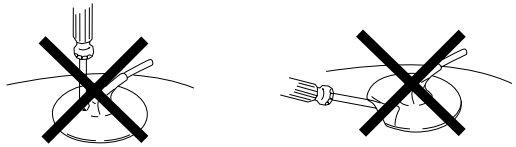
② **Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ⓑ.**



③ **When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling it up in the direction of the arrow ⓒ.**

• HOW TO HANDLE AN ANODE-CAP

① **Do not damage the surface of anode-caps with sharp shaped objects.**
② **Do not press the rubber too hard so as not to damage the inside of anode-cap. A metal fitting called the shatter-hook terminal is built into the rubber.**
③ **Do not turn the foot of rubber over too hard. The shatter-hook terminal will stick out or damage the rubber.**



SECTION 3
ADVANCE OPERATION

3-1. "RESET" FUNCTION

1. Purpose

If a customer faces some setting problem that cannot be solved, using the "RESET" function some items will be reset to its original setting (shipment condition)

2. How to Operate

The way to access to the "RESET" Function:-

a) By pressing "MENU" button or "SELECT" button (for non-menu models) on the Front Key Input and hold it down for 5 seconds.

3. Subsequent of Operation

Sequential to the resetting operation (either methods being used in No. 2), TV set would shut down once and automatically turn on again. The power-off duration is expected to be about 500msec. An OSD message, "RESET" tentatively will be displayed for 10 sec after IK status gets stable.
As a result, some items will be reset to an initial condition (shipment condition) wheareas some other remains at the last selection by user.

Items that remains at the last selection by user

Program No., Favourite CH Setup, PIC rotation, OSD Language, Fine tuning, TV System, Skip

Reset Items

Video input	RF	Color system(RF)	AUTO*
Volume	30	Antenna sensitivity	HIGH*
Picture mode	DYNAMIC	Stereo mode *2	STEREO/NICAM*
Sound mode	DYNAMIC	Bilingual mode *2	MAIN*
Surround mode	OFF	High-deviation mode	AUTO*
Color system(video)	AUTO	Child lock	OFF*
Multi picture(PIP) *1	OFF	Wide mode	OFF
PIP position *1	Bottom-right	Game mode	OFF
Favourite CH mode	AUTO	Teletext mode *2	OFF
OSD recall	OFF	Sleep timer	OFF
Intelligent volume	OFF	Wake-up timer	OFF
ECO mode *2	OFF	Sound muting	OFF

* = only when in RF mode
*1= KV-XA29M84 only
*2= Not used for these models

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SECTION 4
SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with rated power supply voltage unless otherwise noted.

Controls and switches should be set as follows unless otherwise noted:
PICTURE control ..... normal
BRIGHTNESS control ..... normal

Perform the adjustments in the following order :

1. Beam Landing
2. Convergence
3. Focus
4. White Balance

Note : Test Equipment Required.

1. Pattern Generator
2. Degausser
3. Oscilloscope

Preparation :

- In order to reduce the influence of geomagnetism on the set's picture tube, face it east or west.
- Switch on the set's power and degauss with the degausser.

4-1. BEAM LANDING

1. Input a white signal with the pattern generator.
   Contrast, Brightness } normal
2. Position neck assy as shown in Fig4-1.
3. Set the pattern generator raster signal to a green raster.
4. Move the deflection yoke to the rear and adjust with the purity control so that the green is at the center and the blue and the red take up equally sized areas on each side. (See Figures 4-2 through 4-4.)
5. Move the deflection yoke forward and adjust so that the entire screen is green. (See Figure 4-2.)
6. Switch the raster signal to blue, then to red and verify the condition.
7. When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws and DY spacers.
8. If the beam does not land correctly in all the corners, use a magnet to adjust it. (See Figure 4-5.)

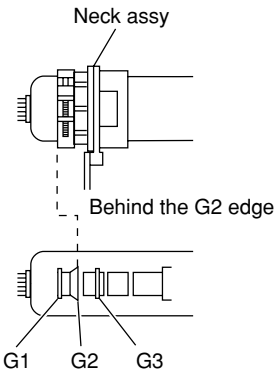

Fig. 4-1

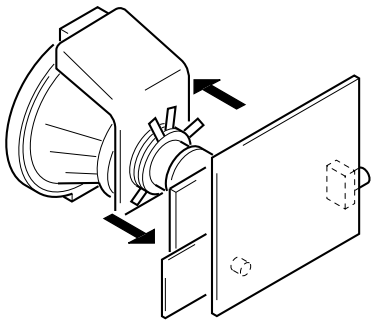

Fig. 4-2

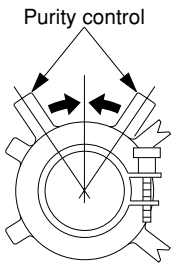

Fig. 4-3

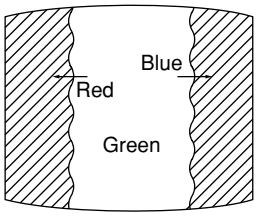

Fig. 4-4

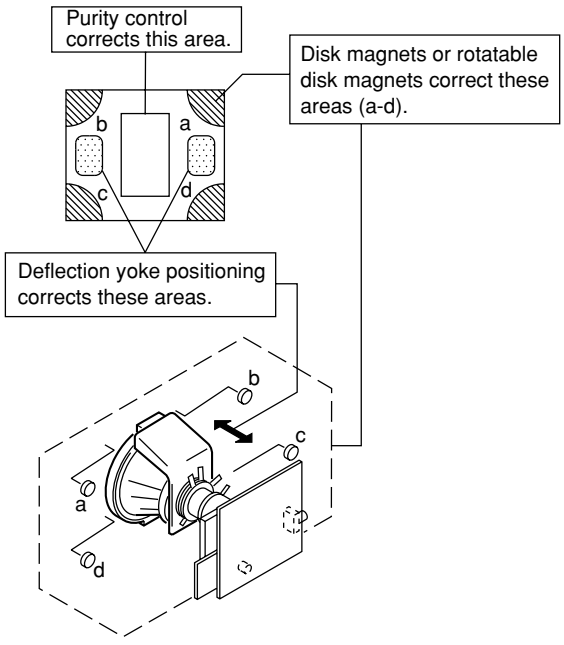

Fig. 4-5

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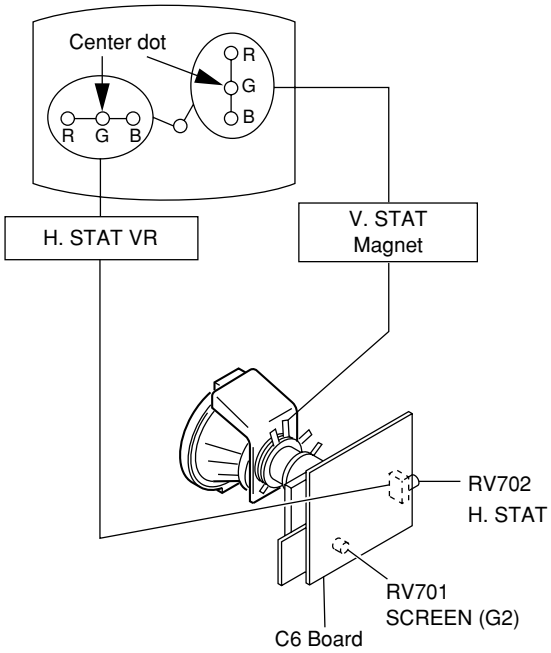
4-2. CONVERGENCE

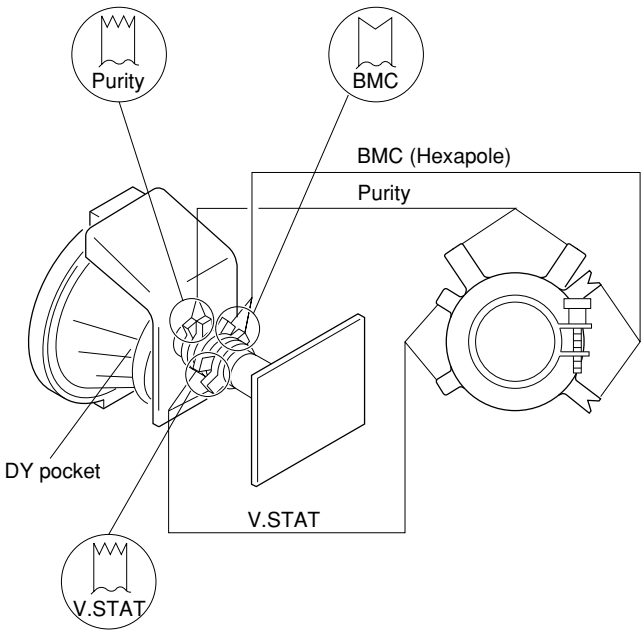
Preparation :

- Before starting this adjustment, adjust the focus, horizontal size and vertical size.
- Receive dot/hatch signal.
- Pic mode: Personal (Pic 90%, Brightness 50%, Col 50 %, Hue 50%, Shp 50%).

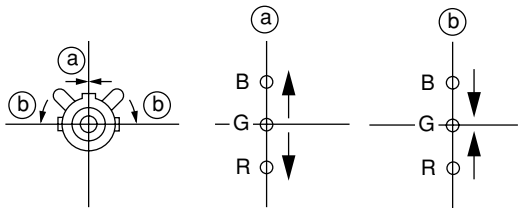
(1) Horizontal and Vertical Static Convergence



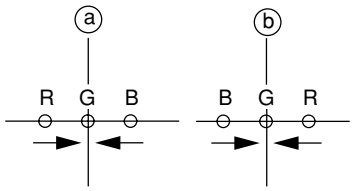
1. (Moving horizontally), adjust the H.STAT control so that the red, green and blue dots are on top of each other at the center of the screen.
2. (Moving vertically), adjust the V.STAT magnet so that the red, green and blue dots are on top of each other at the center of the screen.
3. If the H.STAT variable resistor cannot bring the red, green and blue dots together at the center of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V.STAT magnet in the manner given below.
   (In this case, the H.STAT variable resistor and the V.STAT magnet influence each other, so be sure to perform adjustments while tracking.)



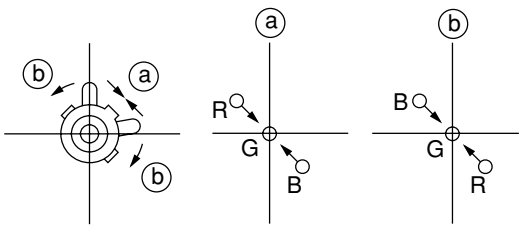
① V. STAT



② H. STAT VR



③



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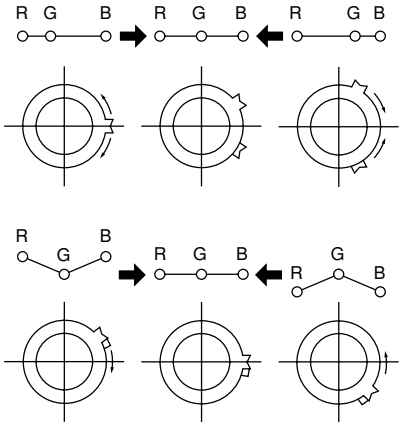
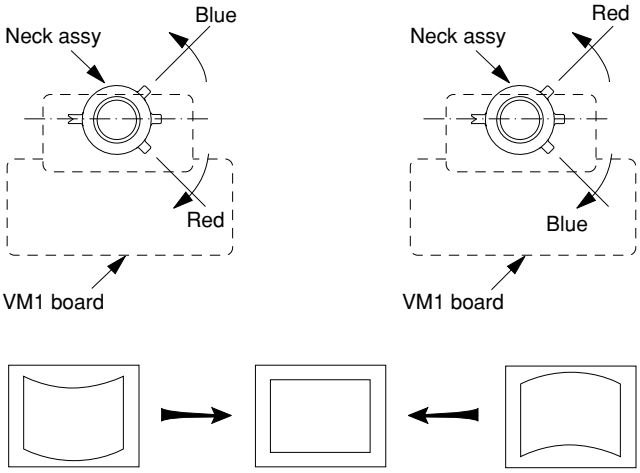
④ BMC (Hexapole) Magnet.
If the red, green and blue dots are not balanced or aligned, then use the BMC magnet to adjust in the manner described below.





Note

1. The Red and Blue magnets should be equally far from the horizontal center line.
2. Do not separate the Red and Blue magnets too far. (Less than 8 mm)

⑤ Y separation axis correction magnet adjustment.

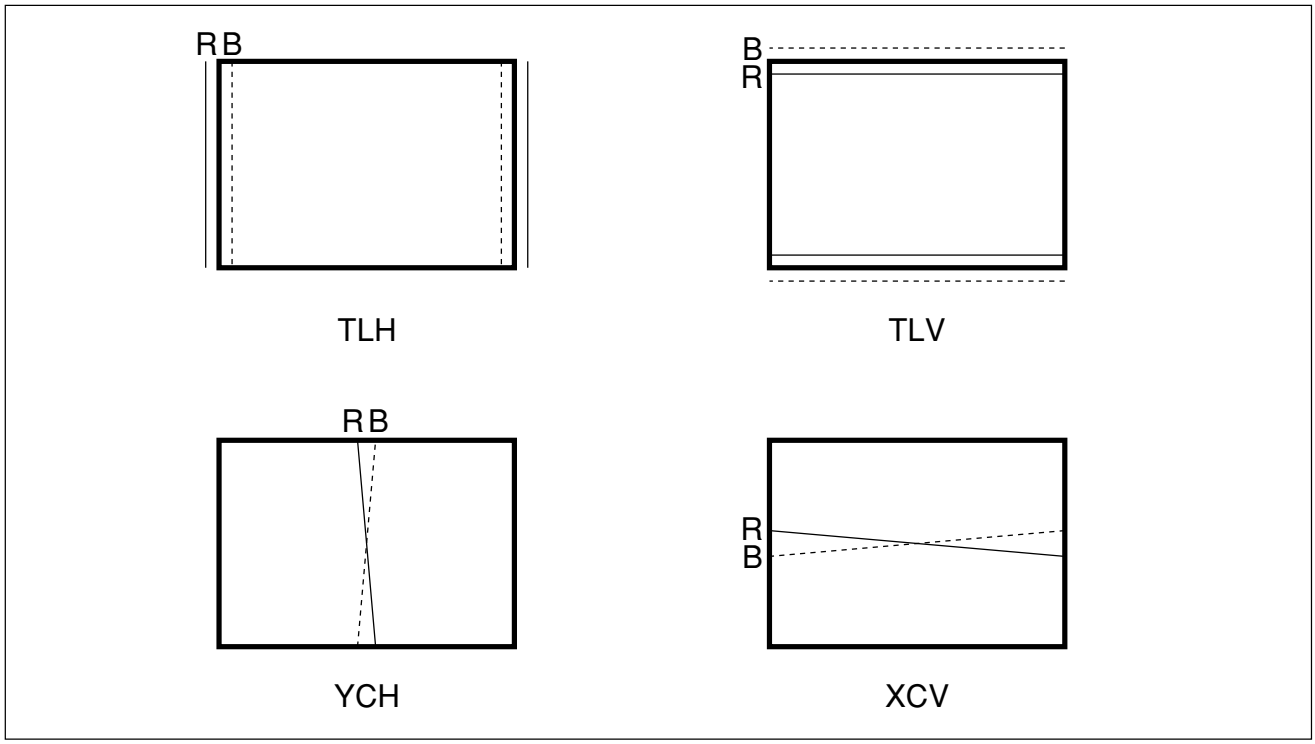
1. Receive the cross-hatch signal and adjust [PICTURE] to [MIN] and [BRIGHTNESS] to [STANDARD] .

2. Adjust the Y separation axis correction magnet on the neck assembly so that the horizontal lines at the top and bottom of the screen are straight.

(2) Dynamic Convergence Adjustment

Preparation:

- Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence



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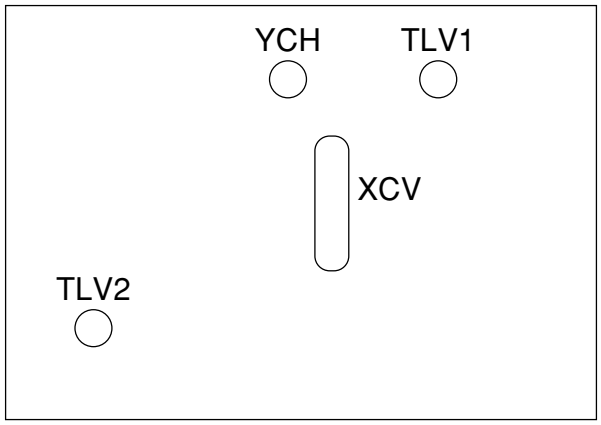
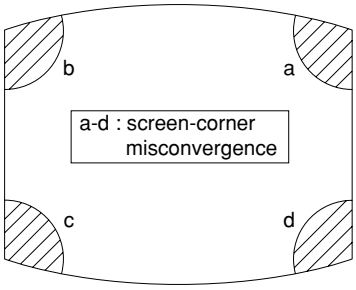
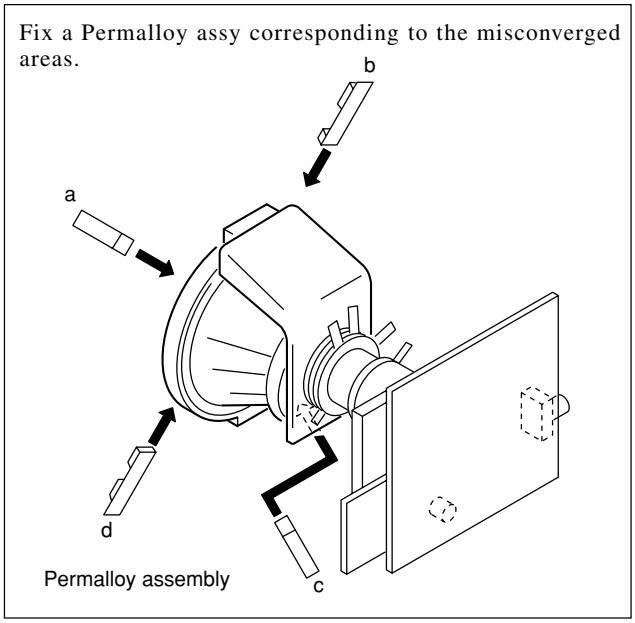
TLV	Rotate	TLV-2	VOL (29", 34") on DY
	Rotate	TLV	VOL (25") on DY
XCV	Rotate	XCV	Adj core on DY
YCH	Rotate	YCH	VOL on DY
TLH	Insert	TLH	Correction Plate to DY Pocket (Left or Right)

ON DY:



(3) Screen-corner Convergence





4-3. FOCUS ADJUSTMENT

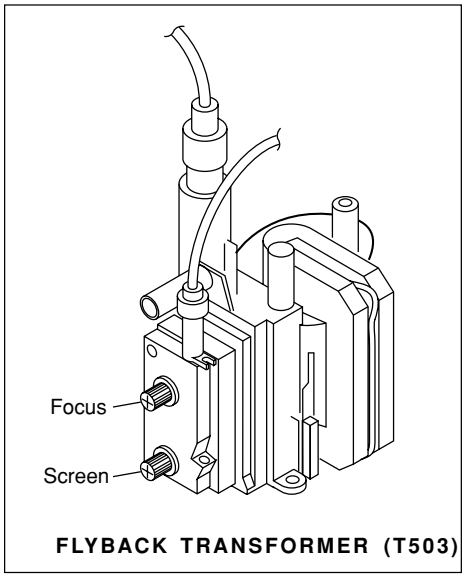
FOCUS adjustment should be completed before W/B adjustment.

(Except 34")

1. Receive digital monoscope pattern.
2. Set "Picture Mode" to "DYNAMIC".
3. (a) Adjust figure VR so that the center of screen becomes just focus (except 25").
   (b) Adjust focus VR so that the lion teeth becomes just focus (25" only).
4. Change the receiving signal to white pattern and blue back.
5. Confirm magenta ring is not noticable. Incase magenta ring is obvious, adjust FOCUS VR to balance between MAGENTA RING and FOCUS.

(For 34")

1. Receive digital monoscope pattern.
2. Set "Picture Mode" to "Standard".
3. Set S2801 to mechanical center position.
4. Adjust focus VR so that the center of the screen becomes just focus.
5. Adjust S2801 when corner focus is unbalance is right and left.
6. Change the receiving signal to white pattern blue back.
7. Confirm Magenta ring is not noticable. Incase magneta ring is obvious, reset S2801 to mechanical center position and then adjust FOCUS VR to balance between MAGENTA RING and FOCUS.



FLYBACK TRANSFORMER (T503)

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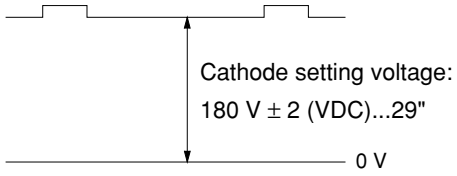
4-4. G2 (SCREEN) AND WHITE BALANCE ADJUSTMENTS

1. G2 (SCREEN) ADJUSTMENT

1) Set the PICTURE to normal.
2) Put to VIDEO input mode without signals.
3) Connect R, G and B of the C6 board cathode to the oscilloscope.
4) Adjust BRIGHTNESS to obtain the cathode voltage to the value below.
5) Adjust G2 (screen) on the FBT until picture shows the point before cut off.

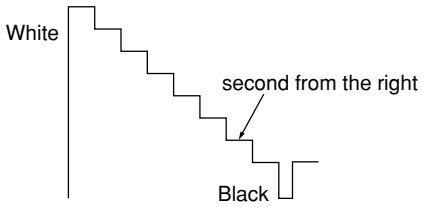


2. WHITE BALANCE ADJUSTMENT

1) Set to Service Mode (Refer Section 5-1: ADJUSTMENTS WITH COMMANDER).
2) Input white raster signal.
3) Set the PICTURE to minimum.
4) Select GCT (WHB 4) and BCT (WHB 5) with [1] and [4], and adjust the level with [3] and [6] for the best white balance.
5) Set the PICTURE to maximum.
6) Select GDR (WHB 1) and BDR (WHB 2) with [1] and [4], and adjust the level with [3] and [6] for the best white balance.
7) Write into the memory by pressing [MUTING] then [0].

3. SUB BRIGHT ADJUSTMENT

1) Set to service mode.
2) Input a staircase signal of black to white from the pattern generator.
3) BRIGHTNESS .... 50%.
   PICTURE ..... MINIMUM
4) Select SBR (WHB7) with [1] and [4], and adjust SBR (WHB7) level with [3] and [6] so that the second stripe from the right is dimly lit.



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SECTION 5
CIRCUIT ADJUSTMENTS

5-1. ADJUSTMENTS WITH COMMANDER

Service adjustments to this model can be performed using the supplied Remote Commander RM-953 or RM-954.

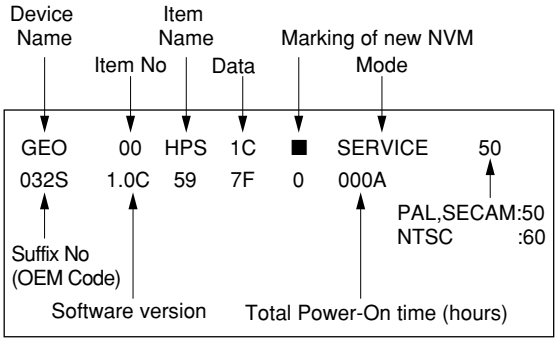
a. ENTERING SERVICE MODE

With the unit on standby

→ [DISPLAY] → [5] → [VOL (+)] → [POWER]

This operation sequence puts the unit into service mode.

The screen display is :



b. METHOD OF CANCELLATION FROM SERVICE MODE

Set the standby condition (Press [POWER] button on the commander), then press [POWER] button again, hereupon it becomes TV mode.

c. METHOD OF WRITE INTO MEMORY

1) Set to Service Mode.
2) Press [1] (UP) and [4] (DOWN), to select the adjustment.
4) Press [MUTING] button to indicate WRITE on the screen.
5) Press [0] button to write into memory.

d. MEMORY WRITE CONFIRMATION METHOD

1) After adjustment, pull out the plug from AC outlet, and then plug into AC outlet again.
2) Turn the power switch ON and set to Service Mode.
3) Call the adjusted items again to confirm adjustments were made.

[1], [4] ↓	Select the adjustment item.
[3], [6] ↓	Raise/lower the data value.
[MUTING] ↓	Writes.
[0]	Executes the writing.

[7], [0]	All the data becomes the values in memory.
[8], [0]	All user control goes to the standard state.
[5], [0]	Service data initialization (Be sure not to use usually.)
[2], [0]	Write 50Hz adjustment data to 60Hz, or vice versa.

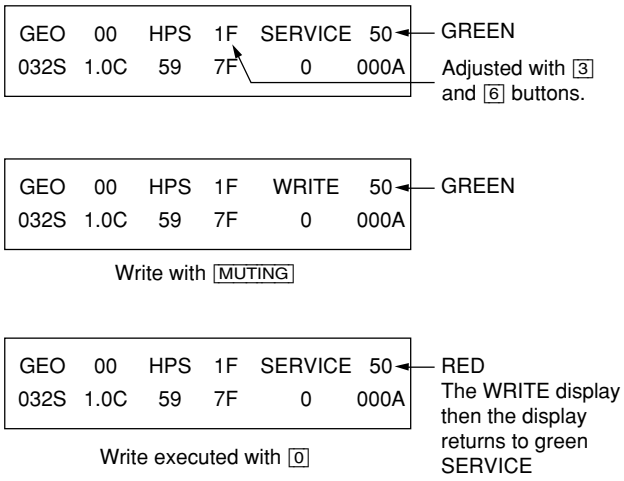
5-2. ADJUSTMENT METHOD

Item Number 00 of device GEO

This explanation uses H-Position as an example.

1. Select “GEO 00 HPS” with the [1] and [4] buttons.
2. Raise/lower the data with the [3] and [6] buttons.
3. Select the optimum state. (The standard is 1F for PAL reception.)
4. Write with the [MUTING] button. (The display changes to WRITE.)
5. Execute the writing with the [0] button. (The WRITE display will be changed to red color while excuting, and back to SERVICE.)

Example on screen display :-


GEO 00 HPS 1F SERVICE 50
032S 1.0C 59 7F 0 000A
GREEN
Adjusted with [3] and [6] buttons.
GEO 00 HPS 1F WRITE 50
032S 1.0C 59 7F 0 000A
GREEN
Write with [MUTING]
GEO 00 HPS 1F SERVICE 50
032S 1.0C 59 7F 0 000A
RED
The WRITE display then the display returns to green SERVICE
Write executed with [0]

Use the same method for all Items. Use [1] and [4] to select the adjustment item, use [3] and [6] to adjust, write with [MUTING], then execute the write with [0].

Note : 1. In [WRITE], the data for all items are written into memory together.
2. For adjustment items that have different standard data between 50Hz or 60Hz, be sure to use the respective input signal after adjustment.

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Adjustment Item Table

8 TVG	Functionality		Range	Function	Table & Note	Register No.bit	Device Name Slava Address	RAM Address (bit)	NVM			Remarks:
Category	No.	Name							Slave	Sub	Bit Range	Initial data for tables
GEO	00	HPS	3F	H Position	Normal(50/60)/Wide(50/60)	14 (7-2)	CXA2159S(88H)	-	A0/A4	(A1/AE)/(44/4F)	7-2	1E (for 50Hz)/16(for 60Hz)
	01	HSZ	3F	H Size	Normal(50/60)/Wide(50/60)	13 (7-2)		-	A0/A4	(A0/AD)/(43/4E)	7-2	1F
	02	PAP	3F	Pin Amp	Normal(50/60)/Wide(50/60)	15 (7-2)		-	A0/A4	(A2/AF)/(45/50)	7-2	1F
	03	TLT	0F	Trapezium	Normal(50/60)/Wide(50/60)	17 (7-4)		-	A0/A4	(A4/B1)/(47/52)	7-4	7
	04	VPS	3F	V Position	Normal(50/60)/Wide(50/60)	11 (7-2)		-	A0/A4	(9E/AB)/(41/4C)	7-2	1F
	05	VSZ	3F	V size	Normal(50/60)/Wide(50/60)	10 (7-2)		-	A0/A4	(9D/AA)/(40/4B)	7-2	1F
	06	SCO	0F	S Correction	Normal(50/60)/Wide(50/60)	12 (7-4)		-	A0/A4	(9F/AC)/(42/4D)	7-4	7
	07	VLN	0F	V Linearity	Normal(50/60)/Wide(50/60)	12 (3-0)		-	A0/A4	(9F/AC)/(42/4D)	3-0	7
	08	BOW	0F	AFC Bow	Normal(50/60)/Wide(50/60)	18 (7-4)		-	A0/A4	(A5/B2)/(48/53)	7-4	7
	09	AGL	0F	AFC Angle	Normal(50/60)/Wide(50/60)	18 (3-0)		-	A0/A4	(A5/B2)/(48/53)	3-0	7
	0A	UPN	3F	Upper Pin	Normal(50/60)/Wide(50/60)	16 (7-2)		-	A0/A4	(A3/B0)/(46/51)	7-2	1F
	0B	LPN	3F	Lower Pin	Normal(50/60)/Wide(50/60)	1A (7-2)		-	A0/A4	(A7/B4)/(4A/55)	7-2	1F
	0C	HBL	1	H Blanking on/off		1A (1)		-	A0	9A	1	1
	0D	LBL	0F	Left H Blanking	Normal(50/60)/Wide(50/60)	19 (7-4)		-	A0/A4	(A6/B3)/(49/54)	7-4	0B(for 50Hz)/0F(for 60Hz)
	0E	RBL	0F	Right H Blanking	Normal(50/60)/Wide(50/60)	19 (3-0)		-	A0/A4	(A6/B3)/(49/54)	3-0	2
WHB	00	RDR	3F	R Drive	DYNAMIC/others	0B (7-2)	CXA2159S(88H)	-	A0	C0/BA	7-2	25 (DYNAMIC)/ 2A (for OTHERS)
	01	GDR	3F	G Drive	DYNAMIC/others	0C (7-2)		-	A0	C1/BB	7-2	1F
	02	BDR	3F	B Drive	DYNAMIC/others	0D (7-2)		-	A0	C2/BC	7-2	1F
	03	RCT	0F	R Cutoff	SECAM/others	09 (3-0)		-	A0	C3/BD	3-0	7
	04	GCT	0F	G Cutoff	SECAM/others	0A (7-4)		-	A0	C4/BE	7-4	7
	05	BCT	0F	B Cutoff	SECAM/others	0A (3-0)		-	A0	C4/BE	3-0	7
	06	BMN	1F	Brightness Minimum Data		08 (7-2)		-	A0	22	6-2	15
	07	SBR	3F	Sub Brightness Control		08 (7-2)		-	A0	23	7-2	1F
	08	APB	3	Sub Bright Control Switch for Intelligent Picture #3		08 (7-2)		-	A0	23	1-0	3
SAJ	00	PMX	3F	Picture Maximum Data	non-Wide/Wide	05 (7-2)	CXA2159S(88H)	-	A0	21/20	7-2	38(NON-WIDE) / 33 (WIDE)
	01	SHU	0F	Sub Hue Control	TV/Video	07 (7-2)		-	A0	24/38	5-2	8
	02	SSH	0F	Sub Sharpness Control	TV/Video	09 (7-4)		-	A0	25/36	7-4	04 (for TV) / 09 (FOR VIDEO)
	03	SCL	3F	Sub Color Control	(NTSC/others)/WIDE(NTSC/others)	06 (7-2)		-	A0	(37/26)(3C/3B)	7-2	1F
VP	00	EHT	0F	EHT Comp	50/60Hz	17 (3-0)	CXA2159S(88H)	-	A0[/A4]	A4/B1[/(47/52)]	3-0	5
	01	GMA	3	Gamma Correction (sepatated in STANDARD mode)	NON-STD.(NTSC/Others)/STD.(NTSC/Others)	0D (1-0)		-	A4	68/67/6A/69	1-0	02(NON-STANDARD)/01 (STANDARD)
	02	APG	1	Gamma Control Switch for Intelligent Picture #3	NON-STD.(NTSC/Others)/STD.(NTSC/Others)	0D (1-0)		-	A4	68/67/6A/69	2	0
	03	YDL	0F	Y Delay	PAL/SECAM/NTSC/DVD	0E (3-0)		-	A4	3C/3E/3D/3F	3-0	(06/09/08/08 for PAL/SECAM/NTSC/DVD)
	04	SST	3	SECAM ID Start Position	SECAM&AUTO/FORSED-PAL&NTSC	03 (5-4)		-	A4	6B/6D	5-4	01(for SECAM/AUTO)/01(for forced PAL/NTSC)
	05	SSP	3	SECAM ID Stop Position	SECAM&AUTO/FORSED-PAL&NTSC	03 (7-6)		-	A4	6B/6D	7-6	01(for SECAM/AUTO)/01(for forced PAL/NTSC)
	06	RLM	3	RGB Limit		03 (1-0)		-	A0	83	1-0	0
	07	SLV	03	SECAM ID Level	SECAM&AUTO/FORSED-PAL&NTSC	04 (1-0)		-	A4	6C/6E	1-0	02(for SECAM/AUTO)/02(for forced PAL/NTSC)
	08	SBF	3F	SECAM BELL f0	SECAM&AUTO/FORSED-PAL&NTSC	04 (7-2)		-	A4	6C/6E	7-2	22(for SECAM/AUTO)/22(for forced PAL/NTSC)
	09	DYC	1	Dynamic Color on/off		0C (1)		-	A0	8C	1	1
	0A	ABL	1	ABL Mode Switching (except STANDARD mode)	except STANDARD	0B (1)		-	A0	8B	1	(00 for STANDARD)/01(OTHERS)
	0B	VTH	1	ABL Detection Vth Switching		0B (0)		-	A0	8B	0	1
	0C	SFO	1	FO Switching for Sharpness	NTSC/others	07 (1)		-	A4	5C/59	1	1
	0D	DCX	1	DC Trans. Ratio Switching		08 (1)		-	A0	88	1	1

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Adjustment Item Table

TVG	Functionality		Initial	Range	Function	Table & Note	Register No.bit	Slava Address	RAM Address (bit)	NVM			Remarks:
Category	No.	Name								Slave	Sub	Bit Range	Initial data for tables
VP	0E	SHT	-	1	Pre-/Overshoot ratio Switch	NTSC/others	08 (0)	CXA2159S(88H)	-	A4	5D/59	0	1
	0F	HDW	-	1	H Drive Pulse Width Switch		00 (6)		-	A0	80	6	0
	10	AFC	-	03	AFC Gain Control	TV/Video/Text	11 (1-0)		-	A0	28/29/2A	1-0	01/00/01 (for TV/VIDEO/TEXT)
	11	HOS	-	0F	H Oscillation		0E (7-4)		-	A0	8E	7-4	7
	12	HSS	-	1	Slice Level of H Sync Sep.		0F (1)		-	A0	8F	1	0
	13	VSS	-	1	Slice Level of V Sync Sep.		0F (0)		-	A0	8F	0	0
	14	HMS	-	1	Macro Vision C/m off/on	50/60Hz	10 (0)		-	A0[/(A4)]	9D/AA[/(40/4B)]	0	1
	15	YUV	-	1	Y SEL		00 (2)		-	A0	80	2	0
	16	CDV	-	3	CD mode for Video and RF under no signal	Video only	0F (5-4)		-	A0	2B	5-4	1
	17	RON	-	1	R ON	not memorized	01 (2)		-	A0	81	2	1
	18	GON	-	1	G ON	not memorized	01 (1)		-	A0	81	1	1
	19	BON	-	1	B ON	not memorized	01 (0)		-	A0	81	0	1
	1A	PON	-	1	P ON	not memorized	00 (7)		-	A0	80	7	1
	1B	AXN	-	1	AXIS SW	NTSC/others (only for DYNAMIC)	07 (0)		-	A0	37/26[(3C/3B)]	0	1
	1C	RSL	-	1	RGB SEL		0C (0)		-	A0	8C	0	0
	1D	VBW	-	3	VBLKW		16 (1-0)		-	A0	96	1-0	0
	1E	RFP	-	1	REFP		14 (0)		-	A0	94	0	0
	1F	VMC	-	3	VM Level		03 (3-2)		-	A0	83	3-2	0
AP	00	AGC	-	1	AGC On/off Control		05 (7)	BH3868AFS(80H)	-	A6	05	7	0
	01	SON	-	1	Surround On/off		05 (6)		-	A6	05	6	0
	02	SST	-	1	Surround Stereo		05 (5)		-	A6	05	5	0
	03	SMO	-	1	Surround Monoral		05 (4)		-	A6	05	4	0
	04	LOP	-	1	Surround Effect Enhancer		05 (3)		-	A6	05	3	0
	05	SUR	-	7	Surround Effect		05 (2-0)		-	A6	05	2-0	0
	06	BAS	-	1F	Bass Sound Mode Control	dyna/drama/soft	03 (6-0)		-	A6	06/09/0C	4-0	12/10/10 (for DYNAMIC/DRAMA/SOFT)
	07	TRE	-	1F	Treble Sound Mode Control	dyna/drama/soft	04 (6-0)		-	A6	07/0A/0D	4-0	13/13/10 (for DYNAMIC/DRAMA/SOFT)
	08	TRF	-	3	Treble data offset		04 (6-0)		-	A6	11	1-0	2
	09	BBE	-	FF	BBE Sound Mode Control	dyna/drama/soft	02 (7-0)		-	A6	08/0B/0E	7-0	99/D5/00 (for DYNAMIC/DRAMA/SOFT)
MSP	00	WST	-	FF	W/G Stereo Threshold			MSP3415D(84H)	-	A0	60	7-0	15
	01	WBT	-	FF	W/G Bilingual Threshold				-	A0	61	7-0	EC
	02	WLL	-	FF	W/G Monaural Threshold				-	A0	62	7-0	5
	03	WAC	-	0F	W/G Agreement Count				-	A0	63	3-0	1
	04	WDL	-	FF	W/G Search Delay				-	A0	64	7-0	30
	05	NDL	-	FF	NICAM Search Delay				-	A0	65	7-0	20
	06	SDL	-	FF	Stereo Status Read Delay				-	A0	66	7-0	10
	07	AGC	-	1	AGC Switch Auto/Constant		00BB (7)		-	A0	68	7	1
	08	REL	-	3F	AGC Gain at Constant Mode		00BB (6-1)		-	A0	68	6-1	28
	09	CRM	-	1	Carrier muting on/off		00BB (9)		-	A0	67	1	0
	0A	ACO	-	1	Audio Clock out on/off		0083 (5)		-	A0	69	5	1

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Adjustment Item Table

TVG	Functionality		Initial	Range	Function	Table & Note	Register No.bit	Slava Address	RAM Address (bit)	NVM			Remarks:
Category	No.	Name								Slave	Sub	Bit Range	Initial data for tables
MSP	0B	FP	-	7F	FM Prescale for non-M system		000E (14-8)	MSP3415D(84H)	-	A0	6A	6-0	1B
	0C	FPM	-	7F	FM Prescale for M system		000E (24-8)		-	A0	6B	6-0	32
	0D	FH	-	7F	FM Prescale for HDEV		000E (14-8)		-	A0	6C	6-0	36
	0E	FHM	-	7F	FM Prescale for HDEV and M		000E (14-8)		-	A0	6D	6-0	65
	0F	WGP	-	7F	W/G Prescale		000E (14-8)		-	A0	6E	6-0	1C
	10	NIP	-	7F	NICAM Prescale		0010 (14-8)		-	A0	6F	6-0	7F
	11	ERR	-	FF	Auto FM Switch Threshold		0021 (10-3)		-	A0	70	7-0	50
	12	VOL	-	FF	Loud Speaker gain 7000h to 7ff0h		0000 (15-4)		-	A4	62	7-0	6D
SVP	00	SBF	-	3F	SECAM BELL f0		1C (7-2)	CXA2139S(8AH)	-	A4	11	7-2	22
	01	HOS	-	0F	H Oscillation		0C (7-4)		-	A4	0C	7-4	7
	02	SHU	-	0F	Sub Hue Control	TV/Video	05 (7-2)		-	A4	2D/2F	5-2	8
	03	AFC	-	3	AFC Gain	TV/Video	0F (0)		-	A4	31/32	1-0	1
PIP	00	SDL	-	0F	Delay of Output SELECT		01 (6-3)	SDA9288X(D6H)	-	A4	1C	6-3	2
	01	PPH	-	FF	H Position of TOP-LEFT Pin P		01/02		-	A4	29	7-0	15
	02	PPV	-	FF	V Position of TOP-LEFT Pin P		03 (7-0)		-	A4	2A	7-0	2E
	03	YDL	-	7	Delay of Luminance Input		04 (2-0)		-	A4	1F	2-0	0
	04	HDI	-	0F	H Sync Delay for Inset		06 (3-0)		-	A4	21	3-0	0
	05	ISC	-	1	Inset Clock Selection		06 (4)		-	A4	21	4	1
	06	CLP	-	1	Clamp Pulse Selection		06 (5)		-	A4	21	5	1
	07	CLC	-	1	Clamp Cycle Selection		06 (6)		-	A4	21	6	0
	08	CON	-	0F	Contrast Adjustment for inset		09 (7-4)		-	A4	24	7-4	0
	09	PLL	-	3	H Position For A-ch		0D (6-5)		-	A4	28	6-5	2
	0A	PDV	-	0F	PIP V Pedestal Level		0E (7-4)		-	A4	57	7-4	0
	0B	PDU	-	0F	PIP U Pedestal Level		0E (3-0)		-	A4	57	3-0	0
TXT	00	TXH	-	3	Teletext Horizontal Position		10 (1-0)	SAA5261(58H)	-	A4	58	1-0	0
	01	TXV	-	3	Teletext Vertical Position		10 (5-4)		-	A4	58	5-4	0
OPM	00	OSH	-	3F	OSD H Position	Option-Misc	1F1	CXP750097(60H)	-	A0	27	7-2	0D
	01	COM	-	03	Comb Selection (0: None, NTSC, 2: Digital, 3: 3D)				-	A0	50	7-6	2
	02	APC	-	1	APC Switch				-	A0	4F	5	1
	03	TSY	-	3	TV Sys at Auto TV Sys				-	A0	4F	4-3	0
	04	MUT	-	1	No Signal Mute				-	A0	4F	0	0
	05	AFM	-	1	Auto FM Switch				-	A0	4F	1	1
	06	RFB	-	3	C-BPF Control				-	A0	50	5-4	0
	07	TV0	-	7	Tilt to V-Angle Offset				-	A0	50	2-0	2
	08	DBL	-	1	Disable Blueback Function				-	A0	4F	2	0
	09	SSO	-	3	Speed Search Option (0-Off, 1-4X, 2-6X, 3-8x)				-	A0	4F	7-6	1
OPB	00	OP1	-	FF	Optional Bits 1 (see the specified sheet)	Option-Bits		CXP750097(60H)	-	A0	2D	7-0	FF
	01	OP2	-	FF	Optional Bits 2 (see the specified sheet)				-	A0	2E	7-0	#
	02	OP3	-	FF	Optional Bits 3 (see the specified sheet)				-	A0	2F	7-0	#
	03	OP4	-	FF	Optional Bits 4 (see the specified sheet)				-	A0	30	7-0	#

NOTE

- shaded items are fixed data.
- Standard data listed on the Adjustment Item Table are reference values, therefore it may be different for each model and for each mode.
- Note for Different Data Those are the standard data values written on the microprocessor. Therefore, the data values of the modes and stored respectively in the memory. In case of a device replacement, adjustment by rewriting the data value is necessary for some items.
- The indication as "#" in OP2, OP3 and OP4 means that it would be referred Option Mode Data.

ITEM INFORMATION

No. OPB0 OP1

Item	XTAL 4.43	XTAL 3.58	SECAM	2nd. Lang	B/G	I	D/K	M
KV-XA29M60	1	1	1	1	1	1	1	1
KV-XA29M84	1	1	1	1	1	1	1	1

APPLICABLE FOR XF-L (14" AND 21") MODELS ONLY

No. OPB1 OP2

Item	TOP	NICAM	HDEV	Thai Bil	Dis Fav.	DVD Input	AV Input	
KV-XA29M60	0	1	1	0	0	1	1	1
KV-XA29M84	1	0	1	0	0	1	1	1

AV Input 00 = no AV Input 01 = 1 AV Input
10 = 2 AV Input 11 = 3 AV Input

DVD Input Effective only when "AV Input" is set to 3 AV Input

Dis Fav. Disable Favorite Channel (Effective For XF-L (21" & 14") Models Only)

No. OPB2 OP3

Item	PIC Rotate*1	2199 Curve*1	Auto PIC	Auto TV sys	US ST	AV Mono*1	11 KEY	Colour SW*2
KV-XA29M60	0	0	1	1	0	0	0	1
KV-XA29M84	1	0	1	0	0	0	0	1

PIC Rotate*1 PIC Rotation Switch 0 = disabled, 1 = enabled

2199 Curve*1 2199 volume Curve Selection 0 = Others, 1 = 2199 Volume Curve.

Auto PIC*3 Auto Picture Improvement 0 = off PNC1/PNC2, 1= activate PNC1/PNC2

A-TVsys Auto TV System in Auto Program 0 = disabled, 1 = enabled

US ST* USA Stereo 0 = disabled, 1 = enabled

AV MONO*1 AV Mono model 0 = Stereo, 1 = Mono
(No Balance & Surround selection)

11 Key Front Key Selection 0 = 7 key model, 1 = 11 key model

Color SW*2 Color Data Selection in Dynamic Mode 0 = 65 (No PIP), 1 = 57 (PIP)

Note: *1 - For XA21/XH29 Models Only
*2 - For XA34/29/25 Models Only
*3 - For PNC3, the enables are from service item APG & APB

No. OPB3 *OP4

Item	PNC2	Korean ST	Vid NTSC3.58	Wide	Video3	Chinese	Arabic	Thai
KV-XA29M60	1	0	0	1	0	1	1	1
KV-XA29M84	1	0	0	1	0	1	1	1

APPLICABLE TO XS ONLY - Sub Language Selection (Bit 0 - Bit 2)

Korean Stereo* Korean Stereo 0 = disabled, 1 = enabled

PNC2*2 Enable switch of PNC2 0 = disable, 1 = enable

Video NTSC3.58* Video Color System 0 = Multi System, 1 = Single System (NTSC3.58)

Wide Enable wide mode 0 = disable, 1 = enable

*Note : *APPLICABLE FOR NTSC MODELS ONLY

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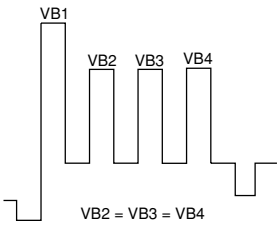
5-3. PICTURE QUALITY ADJUSTMENTS

SUB COLOR ADJUSTMENT

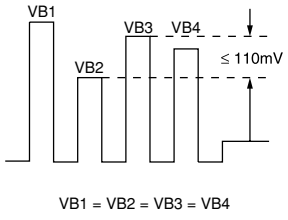
1. Select Video.
2. Input a PAL color-bar.
3. Set to the following condition:
   PICTURE 100%, BRIGHTNESS 50%, COLOR 50%
4. Connect an oscilloscope to pin ① (B OUT) of CN305, A board.
5. Set to Service Mode and select SAJ 3 'SCL' with [1] and [4] of the commander then adjust to VB2=VB3=VB4 with [3] and [6].
6. Press [MUTING] → [0] of the commander to write the data.
7. Adjust SAJ 3 'SCL' as step 3 to 5 when receiving NTSC color-bar.
8. Select the 'Wide' mode, write the 'same data-3 steps' for both PAL and NTSC input.



VB2 = VB3 = VB4 (Difference is within 70mV)

SUB HUE ADJUSTMENT

1. Select Video 1.
2. Input a NTSC 3.58 color-bar, into Video.
3. Set the following condition:
   PICTURE 100%, BRIGHTNESS 50%, COLOR 50%
4. Connect an oscilloscope to pin ① (B OUT) of CN305, A board.
5. Select SAJ 1 'SHU' with [1] and [4] of the commander by setting to Service Mode and adjust to VB1=VB2=VB3=VB4 with [3] and [6].



The highest level of VB1,VB2,VB3,VB4 must be aligned at the same line. Ideal difference level between VB2 and VB3 should be within ± 110mV.

6. Press [MUTING] → [0] of the commander to write the data.
7. Adjust SAJ 1 'SHU' as step 3 to 6 when receiving TV mode.

5-4. DISPLAY POSITION ADJUSTMENT

PIP POSITION (KV-XA29M84 ONLY)

1. Input a PAL color-bar.
2. Press PIP button of the remote commander to set the PIP picture.
3. Set to Service Mode.
4. Use [1] and [4] of the remote commander to select PIP 1 "PPH" and use [3] and [6] to set data "15".
5. Select PIP 2 "PPV" to set data "2E".
6. Press [MUTING] → [0] of the remote commander to write the data.
7. Use the screen display menu changing the PIP position to check the PIP position.

5-5. DEFLECTION ADJUSTMENT

NORMAL MODE (50Hz)

1. Set to Service Mode.
2. Using the [1] and [4] button, select category GEO (Service Mode).
3. Raise/lower the data using the [3] and [6] buttons.
   Select and adjust the following items to obtain optimum image.

   Service Item

GEO :	00	HPS	H POSITION
	01	HSZ	H SIZE
	02	PAP	PIN AMP
	03	TLT	TILT
	04	VPS	V POSITION
	05	VSZ	V SIZE
	06	SCO	S CORRECTION
	07	VLN	V LINEARITY
	08	BOW	AFC BOW
	09	AGL	AFC ANGLE
	0A	UPN	UPPER CORNER PIN
	0B	LPN	LOWER CORNER PIN

WIDE MODE (50Hz)

4. Input PAL color bar.
5. Adjust condition change to WIDE MODE : ON.
6. Using the [1] and [3] button, select category GEO (Service Mode).
7. Copy (item from normal mode (50Hz)) adjusted data for the following item:
   Service Item

GEO :	01	HSZ	H POSITION
	05	VSZ	V POSITION
	06	SCO	S CORRECTION
	07	VLN	V LINEARITY

8. Raise/lower data using [3] and [6] buttons, select and adjust the following items to obtain optimum image.

   Service Item

GEO :	00	HPS	H POSITION
	02	PAP	PIN AMP
	03	TLT	TILT
	04	VPS	V POSITION
	08	BOW	AFC BOW
	09	AGL	AFC ANGLE
	0A	UPN	UPPER CORNER PIN
	0B	LPN	LOWER CORNER PIN

9. After confirm WIDE MODE : ON – OFF.
10. Repeat same steps for NTSC input signal.

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NORMAL MODE (60Hz)

11. Input 525/60Hz signal.
12. Using the [1] and [4] buttons select category GEO (Service Mode).
13. Select and adjust the following items to obtain obtimum image. Raise/lower the data with the [3] and [6] buttons.

Service Item

GEO :	00	HPS	H POSITION
	01	HSZ	H SIZE
	02	PAP	PIN AMP
	03	TLT	TILT
	04	VPS	V POSITION
	05	VSZ	V SIZE
	06	SCO	S CORRECTION
	07	VLN	V LINEARITY
	08	BOW	AFC BOW
	09	AGL	AFC ANGLE
	0A	UPN	UPPER CORNER PIN
	0B	LPN	LOWER CORNER PIN

WIDE MODE (60Hz)

14. Input monoscope signal.
15. Adjust condition change to WIDE MODE: ON.
16. Using the [1] and [4] button select category GEO (Service Mode).
17. Copy (item from NORMAL MODE (60Hz)) adjusted data for the following items:

Service Item

GEO :	01	HSZ	H SIZE
	05	VSZ	V SIZE
	06	SCO	S CORRECTION
	07	VLN	V LINEARITY

18. Raise/lower the data with the [3] and [6] buttons. Select and adjust the following items to obtain optimum image.

Service Item

GEO :	00	HPS	H POSITION
	02	PAP	PIN AMP
	03	TLT	TILT
	04	VPS	V POSITION
	08	BOW	AFC BOW
	09	AGL	AFC ANGLE
	0A	UPN	UPPER CORNER PIN
	0B	LPN	LOWER CORNER PIN

19. After confirm WIDE MODE : ON – OFF.

Note:

For Deflection Adjustment, set PICTURE MODE to "SOFT".

5-6. H-TRAPEZOID ADJUSTMENT

1. Receive cross hatch/dot signal.
2. Adjust RV1801 on C6 board to make H-Trapezoid distortion best.

5-7. A BOARD ADJUSTMENT AFTER IC003 REPLACEMENT

1. Enter to Service Mode.
2. Press commander buttons [5] and [0] (Data Initialize), and [2] and [0] (Data Copy) to initialize the data.
3. Call each item number and check if the respective screen shows the normal picture.
   In cases where items are not well adjusted, rectify the fine adjustment.
   Write the data per each item number ([MUTING] +[0]).
4. Select item numbers “OPB00” (OP1), “OPB01” (OP2), "OPB 02" (OP3) and "OPB 03" (OP4) respectively set the bit per model with command buttons [3] and [6].
5. Press commander buttons [8] and [0] (Test Normal) to return to the data that was set on the shipment from the factory.
   (This will also cancel Service Mode.)

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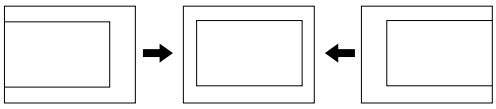
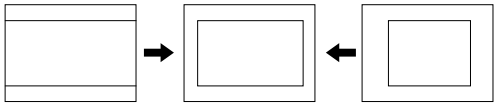
5-8. PICTURE DISTORTION ADJUSTMENT (1)

Item Number 00 – 0B

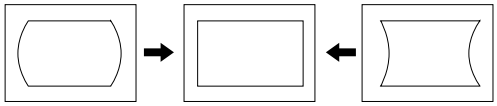
GEO 0 HPS (H POSITION)



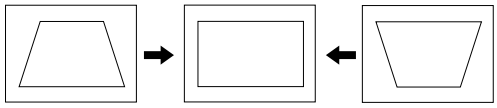
GEO 1 HSZ (H SIZE)



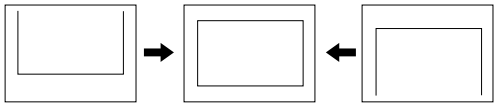
GEO 2 PAP (PIN AMP)



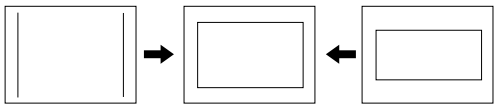
GEO 3 TLT (TRAPEZIUM)



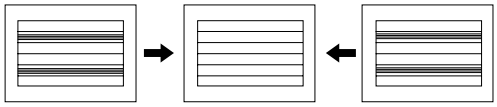
GEO 4 VPS (V POSITION)



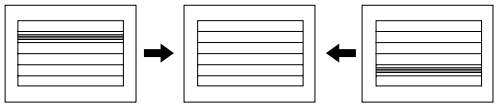
GEO 5 VSZ (V SIZE)



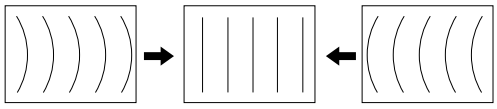
GEO 6 SCO (VERTICAL S-Correction)



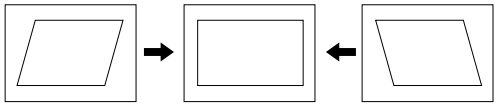
GEO 7 VLN (V LINEARITY)



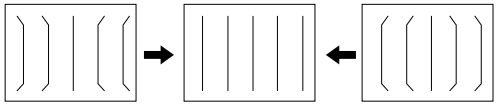
GEO 8 BOW (AFC.BOW)



GEO 9 AGL (AFC.ANGLE)

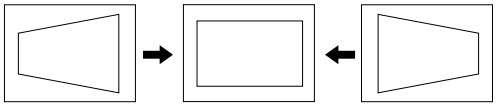


GEO 0A UPN (UPPER CORNER PIN)
GEO 0B LPN (LOWER CORNER PIN)



PICTURE DISTORTION ADJUSTMENT (2)

H-TRAPEZOID (DAC 4 HTR)



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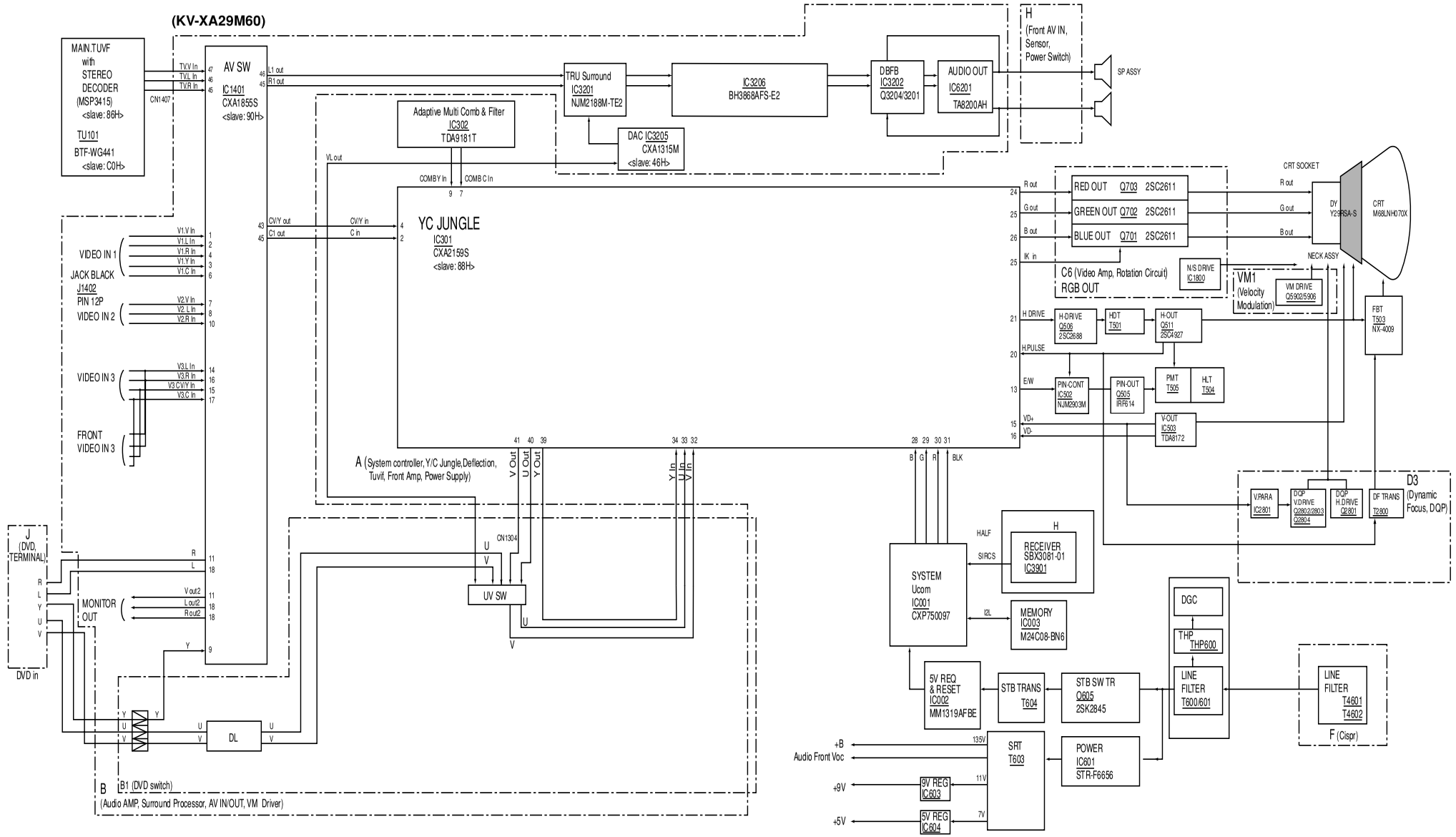
SECTION 6 DIAGRAMS

6-1. BLOCK DIAGRAM



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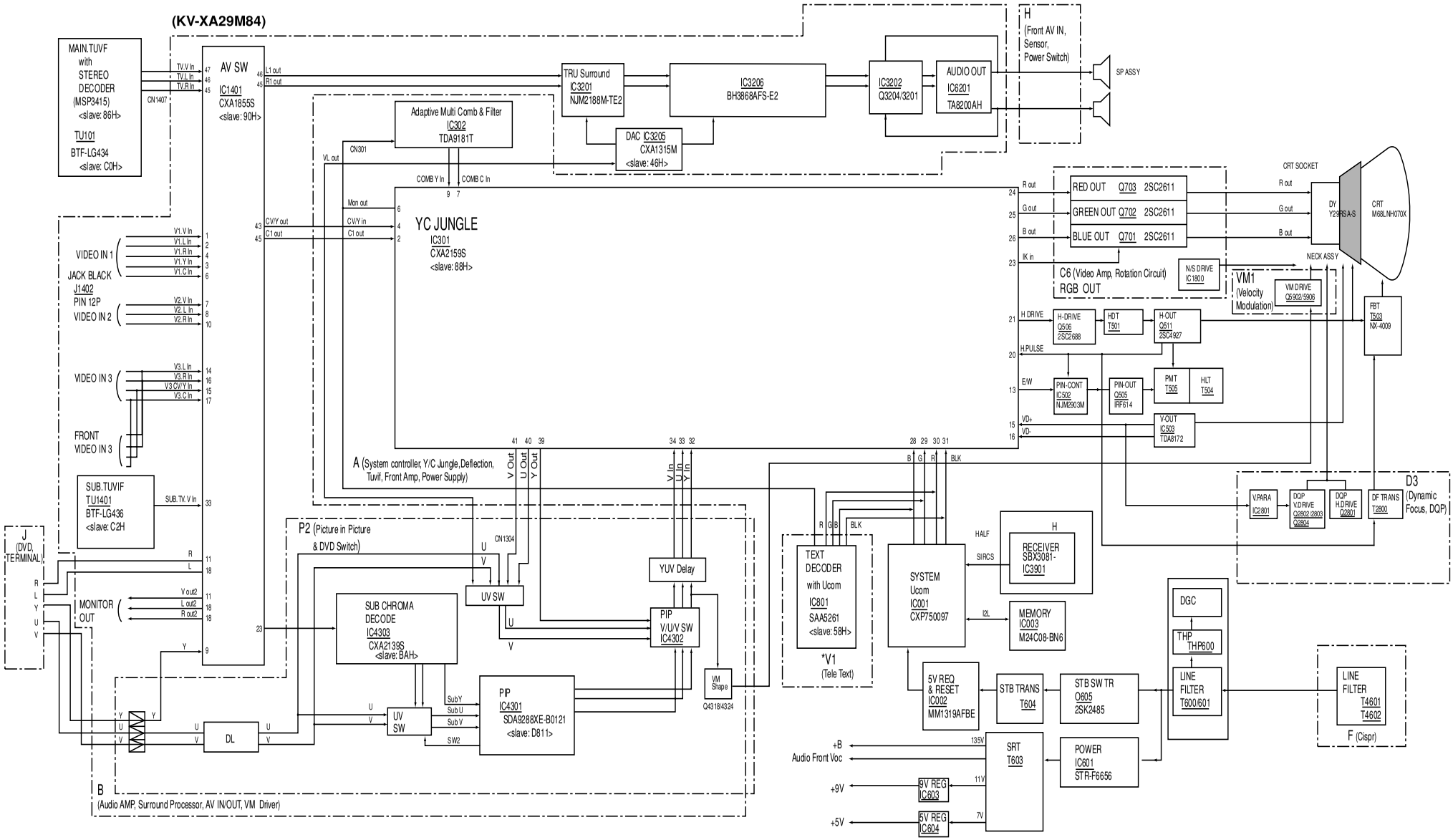
KV-XA29M60/XA29M84 RM-954 RM-953



* Not used for this model

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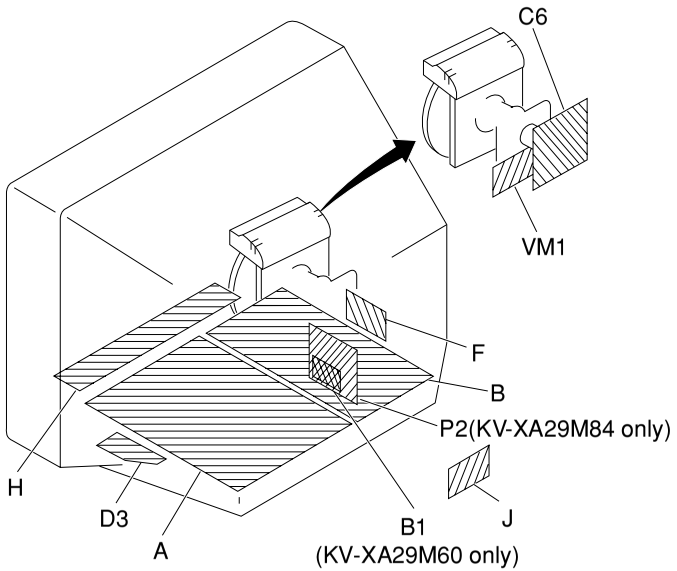
6-2. CIRCUIT BOARDS LOCATION



6-3. SCHEMATIC DIAGRAM

Note:

- All capacitors are in µF unless otherwise noted.
- All electrolytic capacitors are rated at 50V unless otherwise noted.
- All resistors are in ohms.
  kΩ = 1000Ω, MΩ = 1000kΩ
- Indication of resistance which does not have rating electrical power is as follows.

  Pitch: 5 mm
  Rating electrical power 1/4W (CHIP: 1/10W)

- : nonflammable resistor.
- △ : internal component.
- : panel designation or adjustment for rrepair.
- All variable and adjustable resistors have characteristic curve B unless otherwise noted.
- **Redings are taken with a color-bar signal input.**
  no mark : PAL
  ( ) : SECAM
  [ ] : NTSC 3.58
  << >> : NTSC 4.43
- **Readings are taken with a 10W MW digital multimeter.**
- **Voltage are dc with respect to ground unless otherwise noted.**
- **Voltage variations may be noted due to normal production tolerances.**
- **All voltage are in V.**
- ✻ **: Cannot be measured.**
- **Circled numbers are waveform references.**
- **: B +bus.**
- **: B –bus.**
- ⇨ **: signal path.**

Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
	: RW	NONFLAMMABLE WIREWOUND
	: ✻	ADJUSTMENT RESISTOR
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

Note: The component identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

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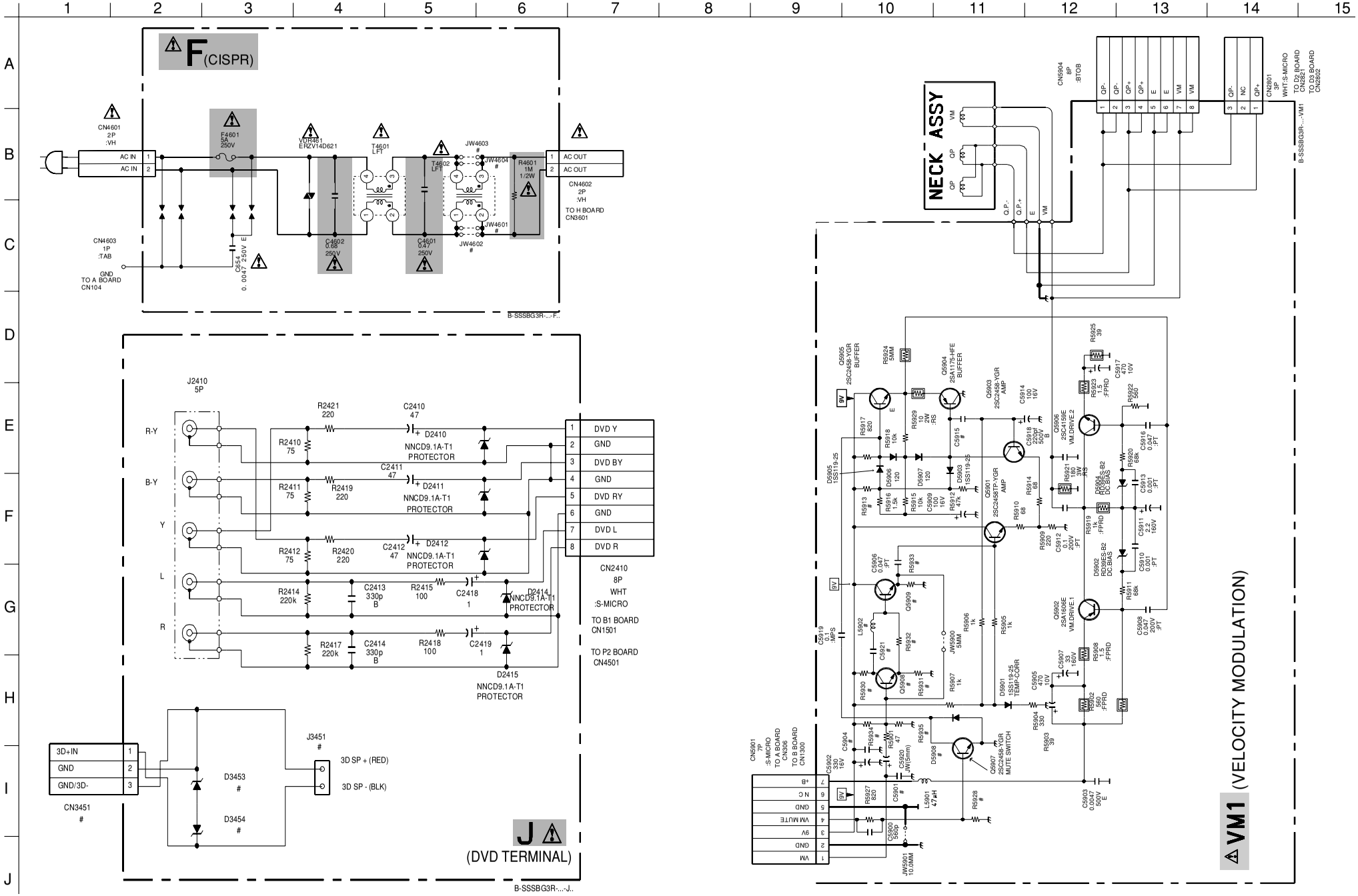
(1) Schematic Diagrams of F, J and VM1 Boards



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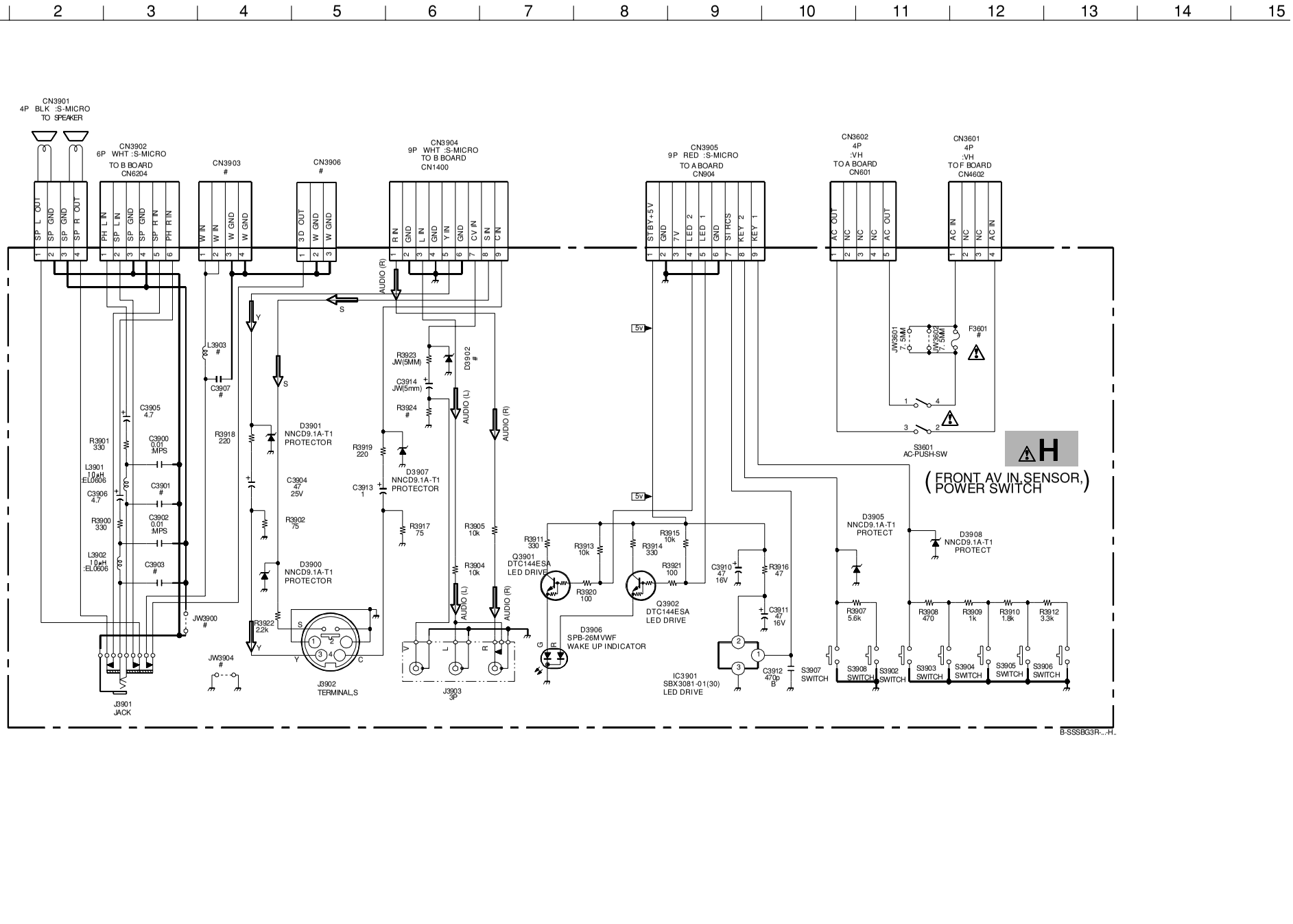
(2) Schematic Diagram of H Board



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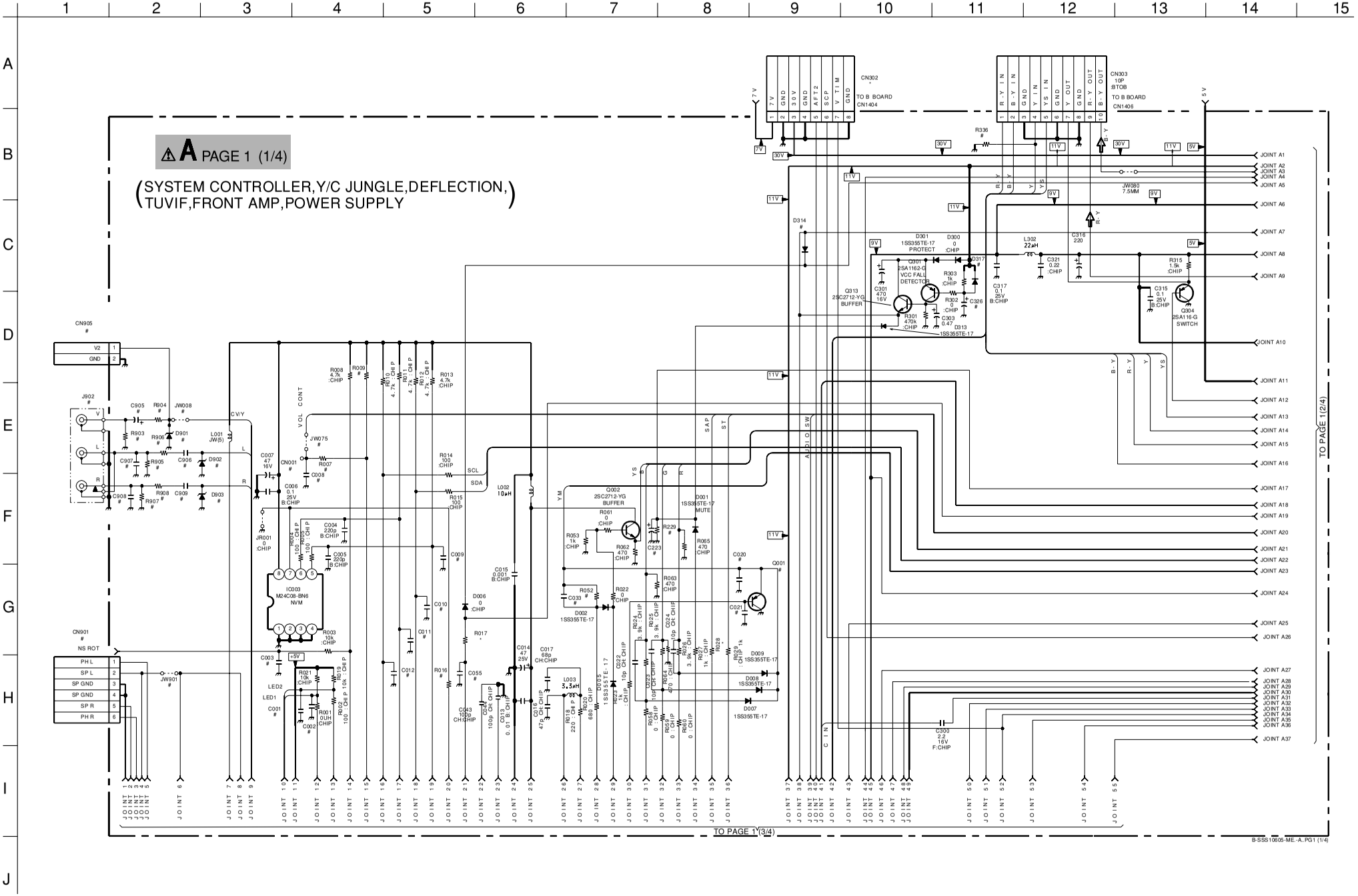
(3) Schematic Diagram of A Board



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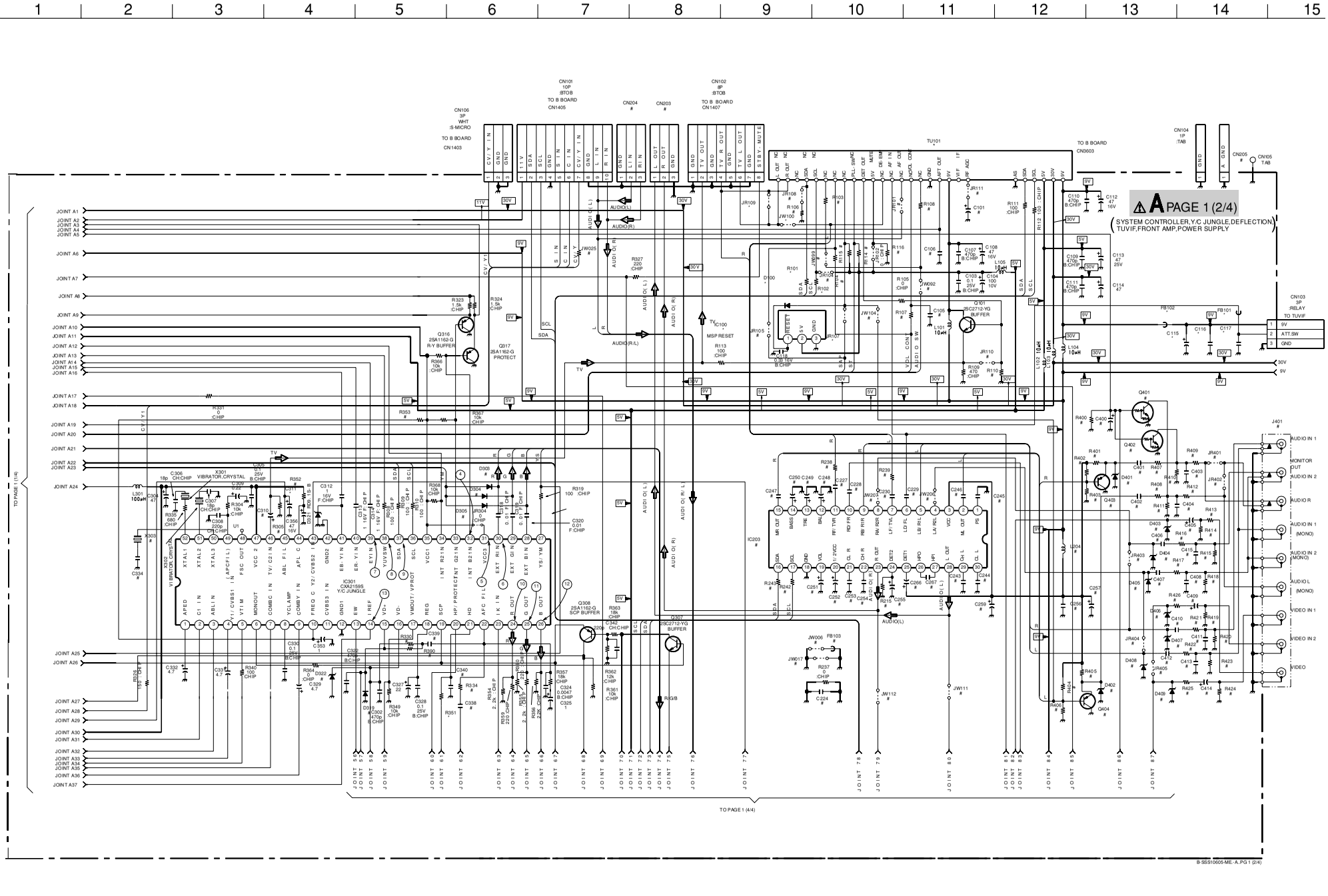

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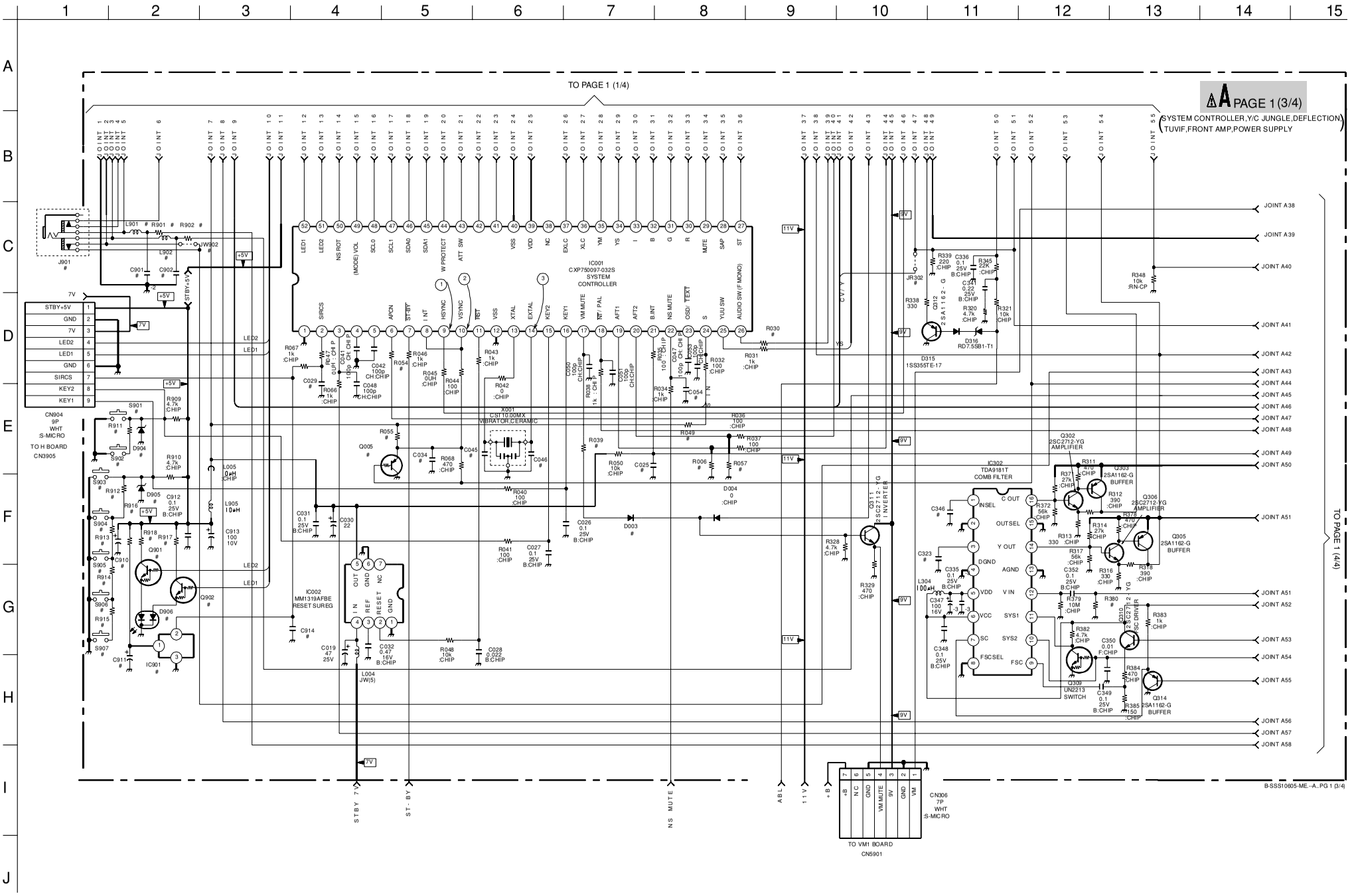

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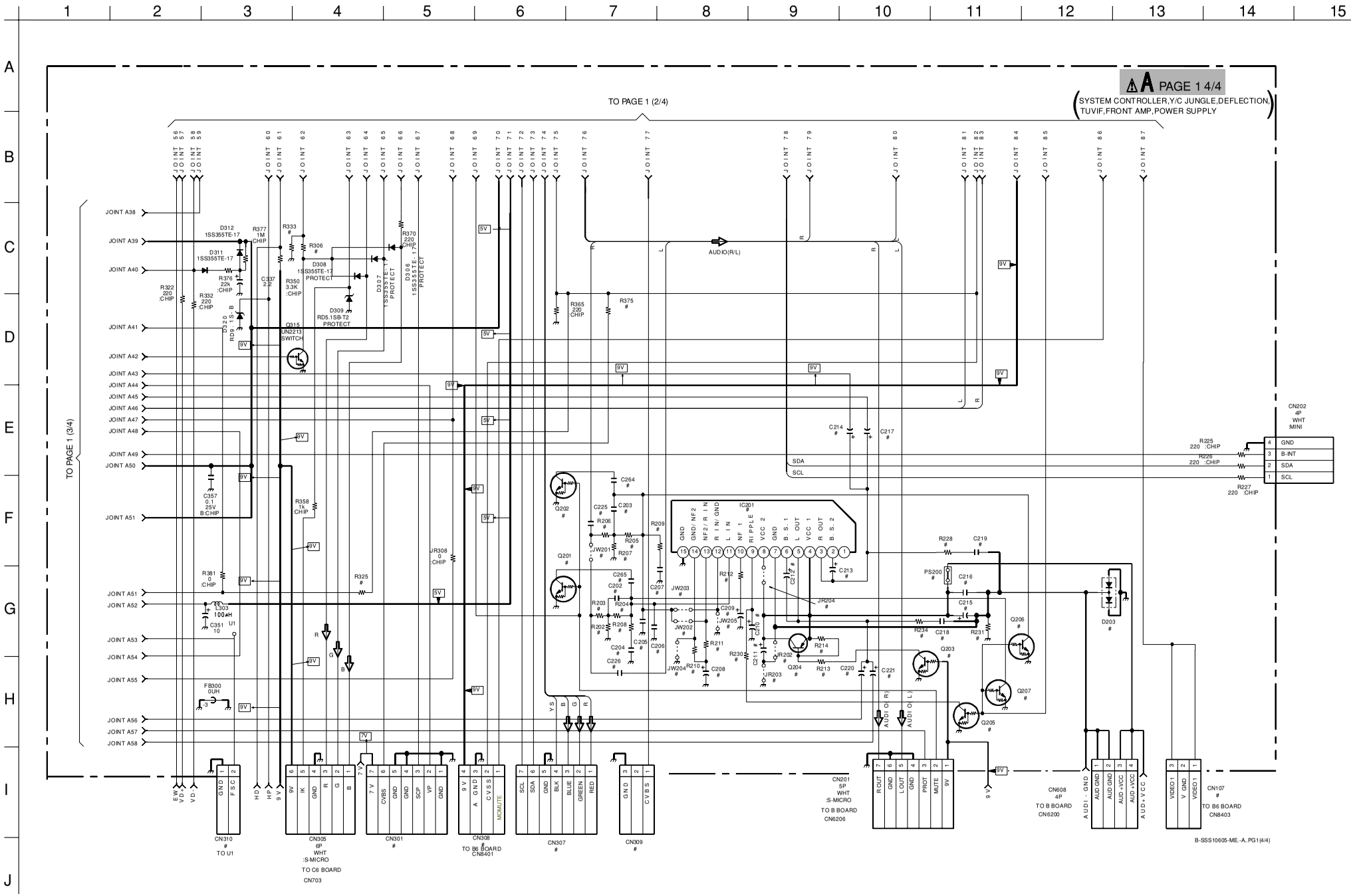

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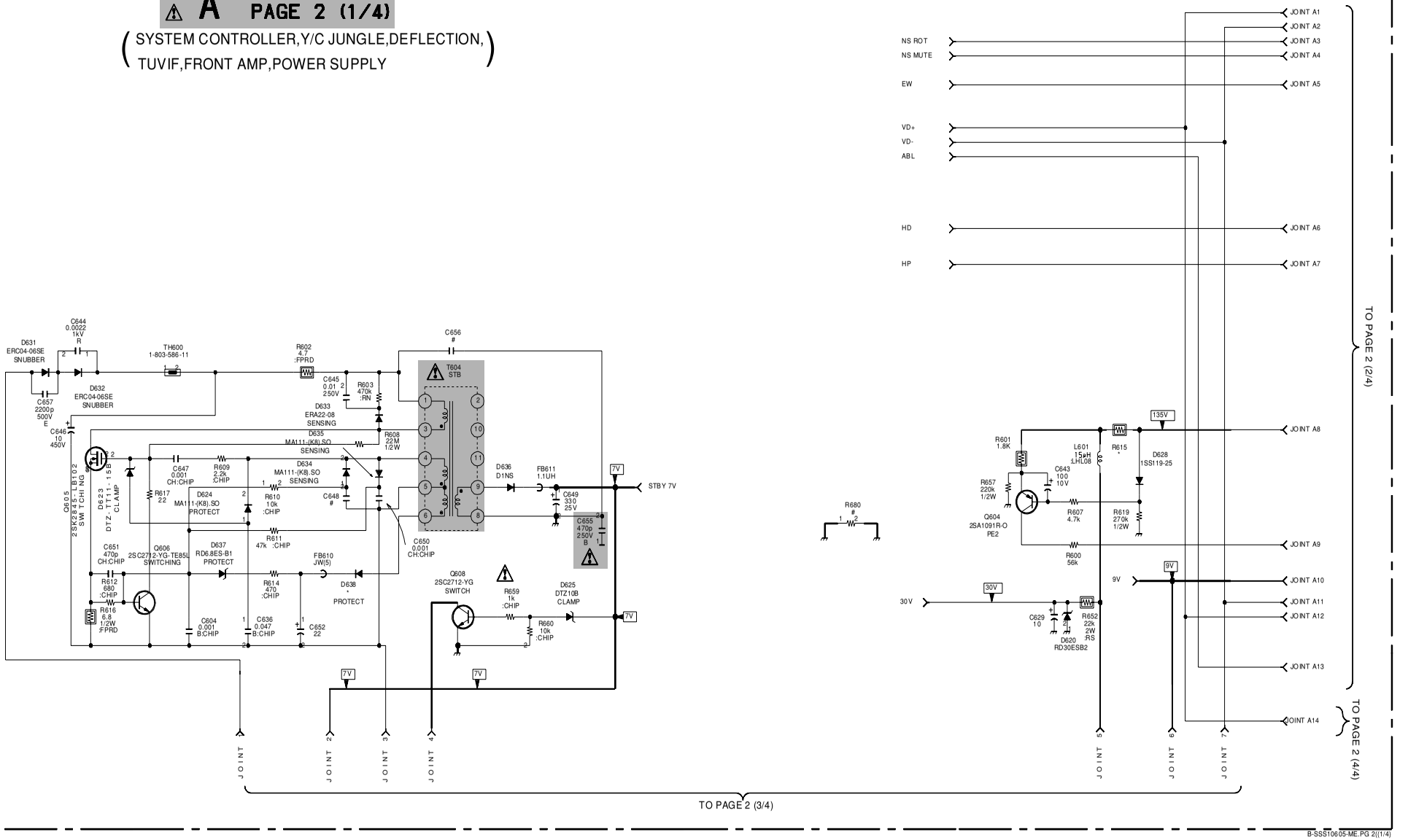
⚠ A PAGE 2 (1/4)

(SYSTEM CONTROLLER,Y/C JUNGLE,DEFLECTION, TUVIF,FRONT AMP,POWER SUPPLY)



B-SSS10605-ME.PG 2((1/4)

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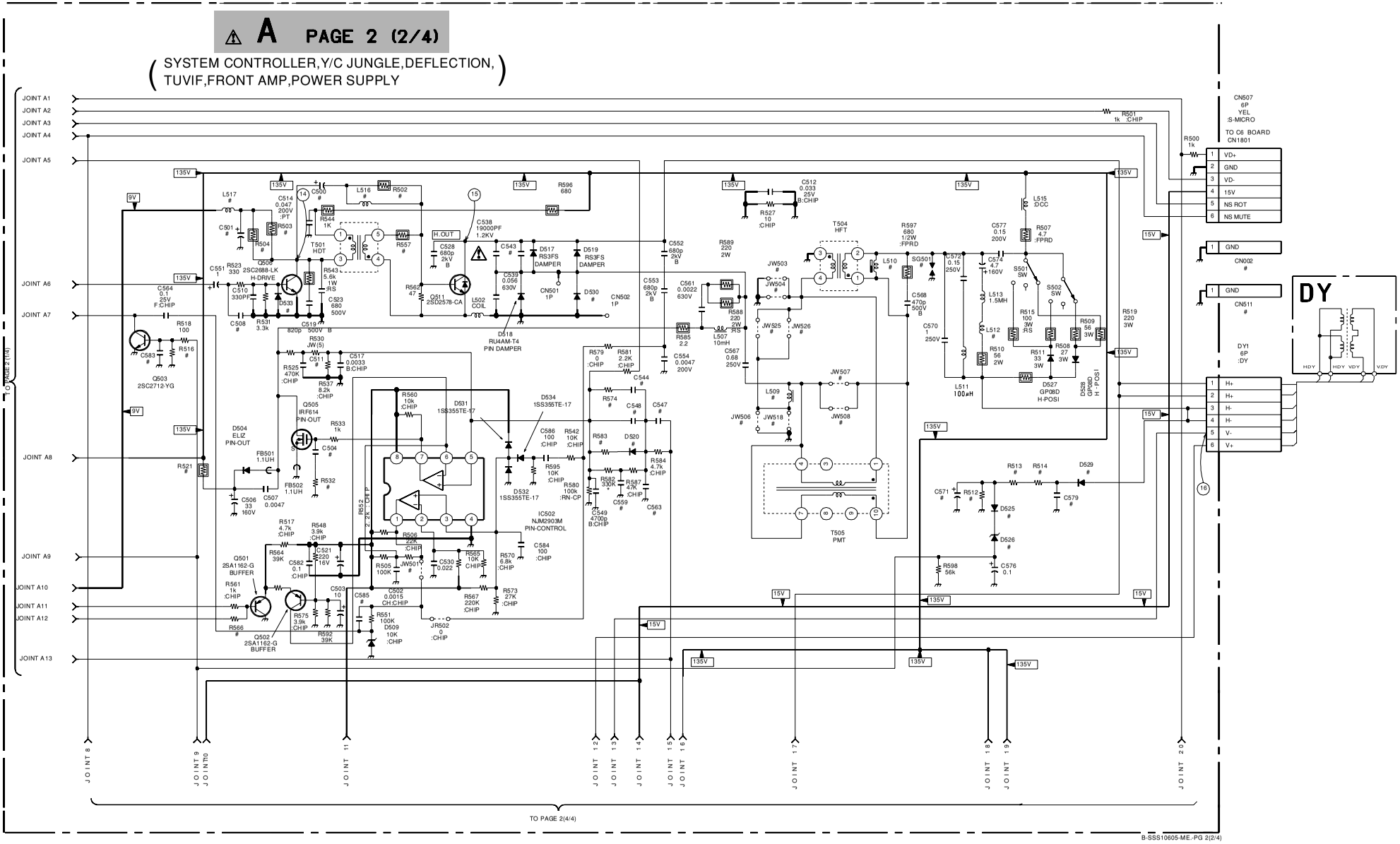
A PAGE 2 (2/4)

(SYSTEM CONTROLLER,Y/C JUNGLE,DEFLECTION,
TUVIF,FRONT AMP,POWER SUPPLY)



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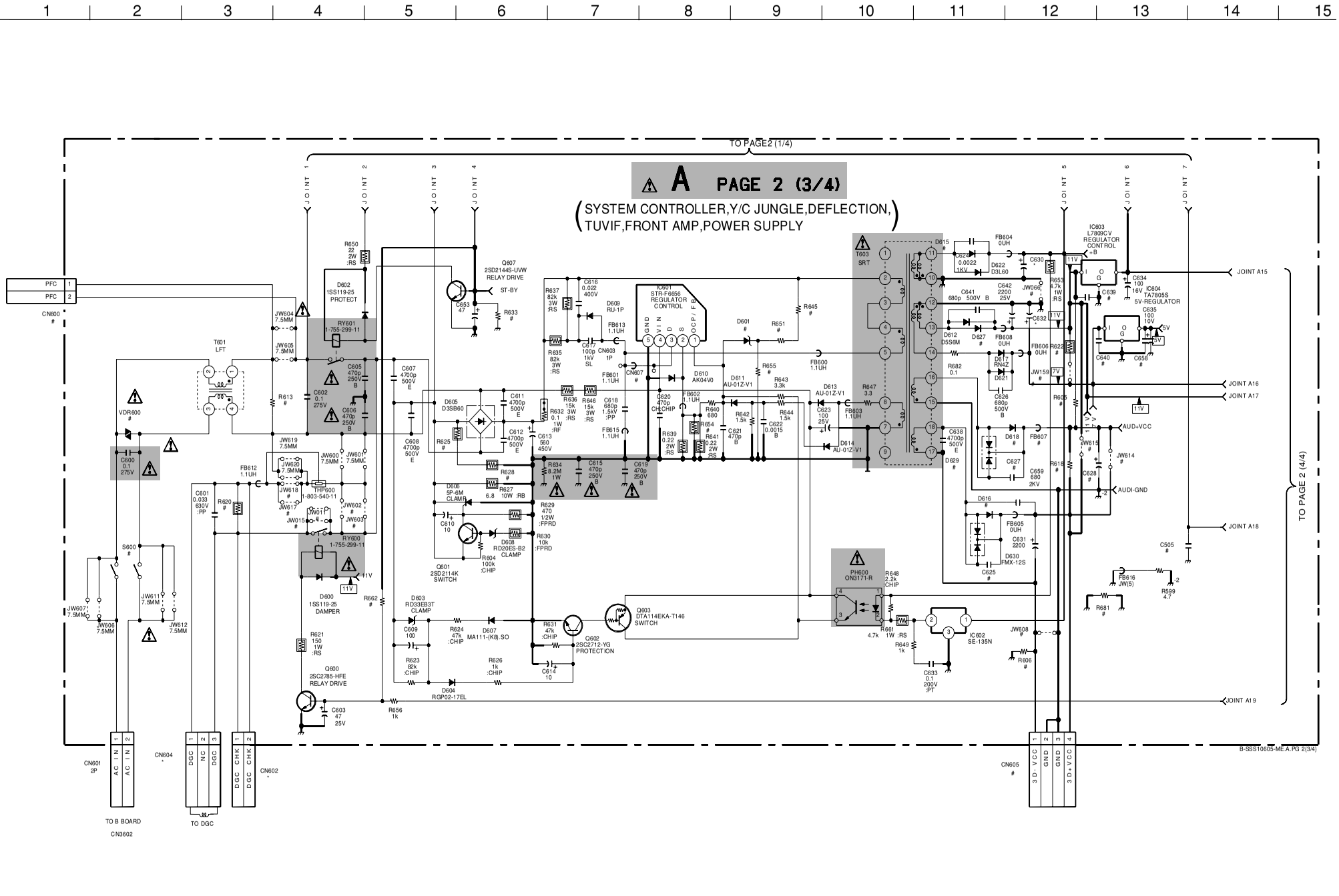
KV-XA29M60/XA29M84 RM-954 RM-953



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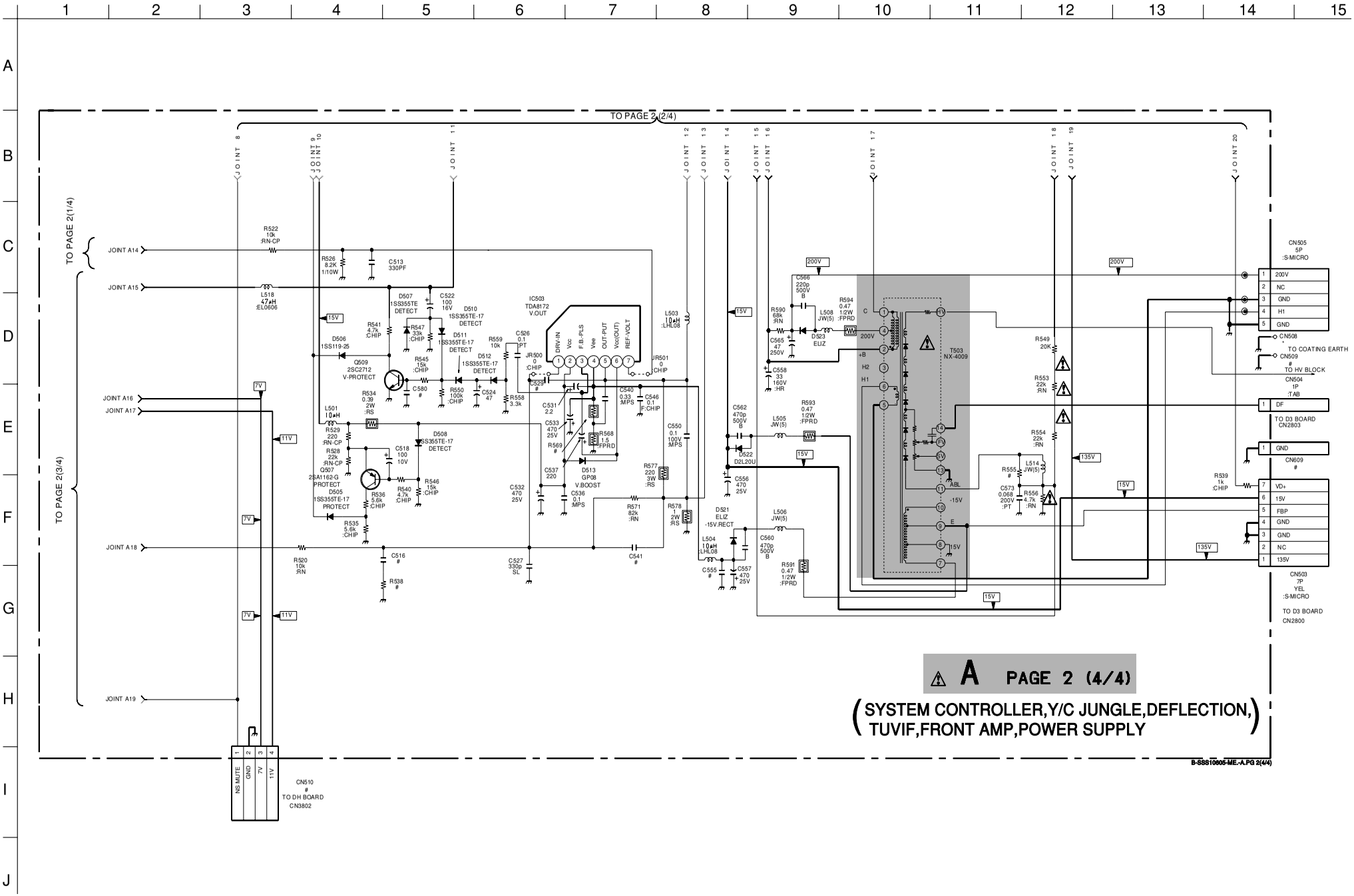
KV-XA29M60/XA29M84 RM-954 RM-953



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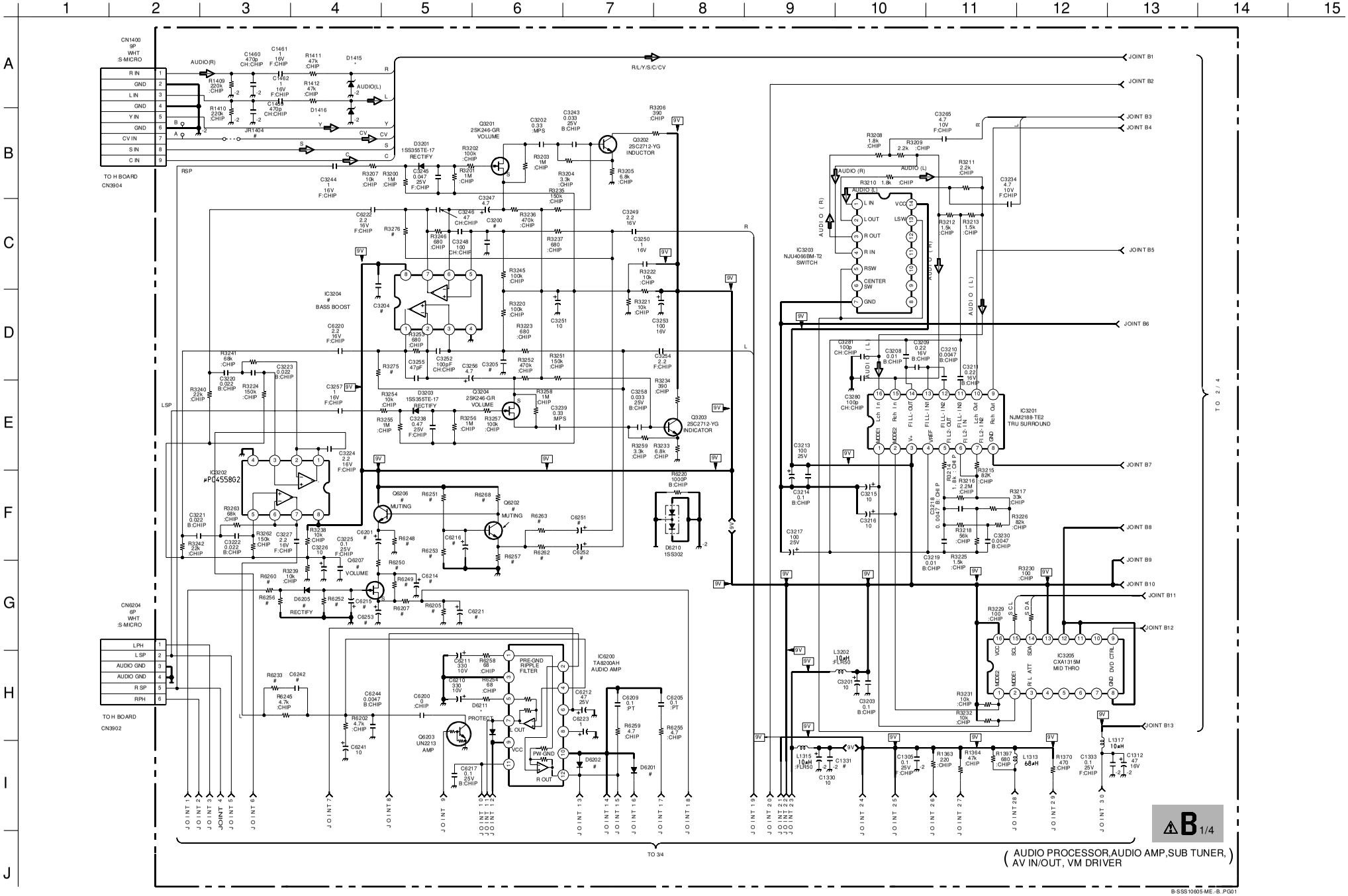
KV-XA29M60/XA29M84 RM-954 RM-953

(4) Schematic Diagram of B Board



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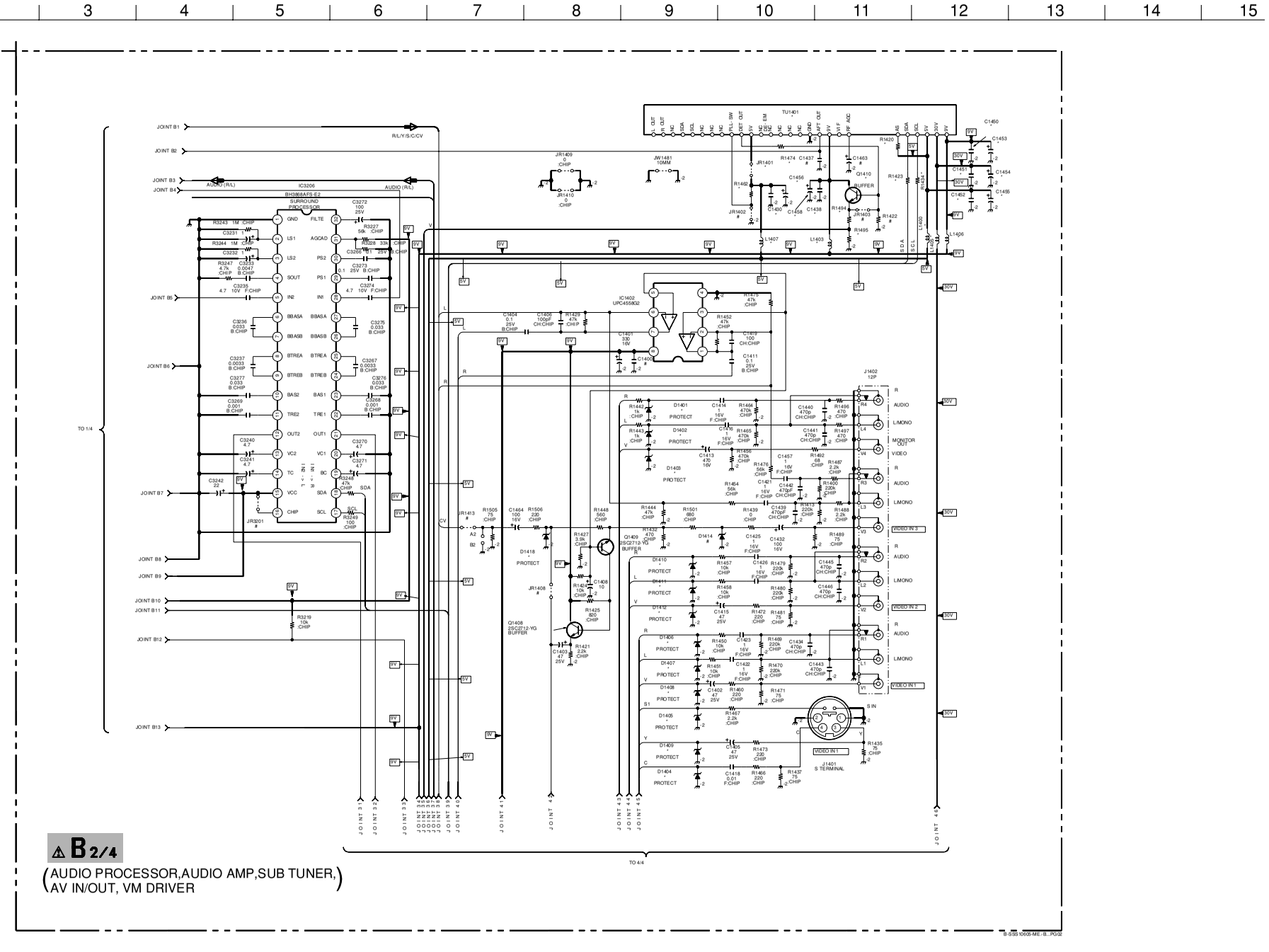

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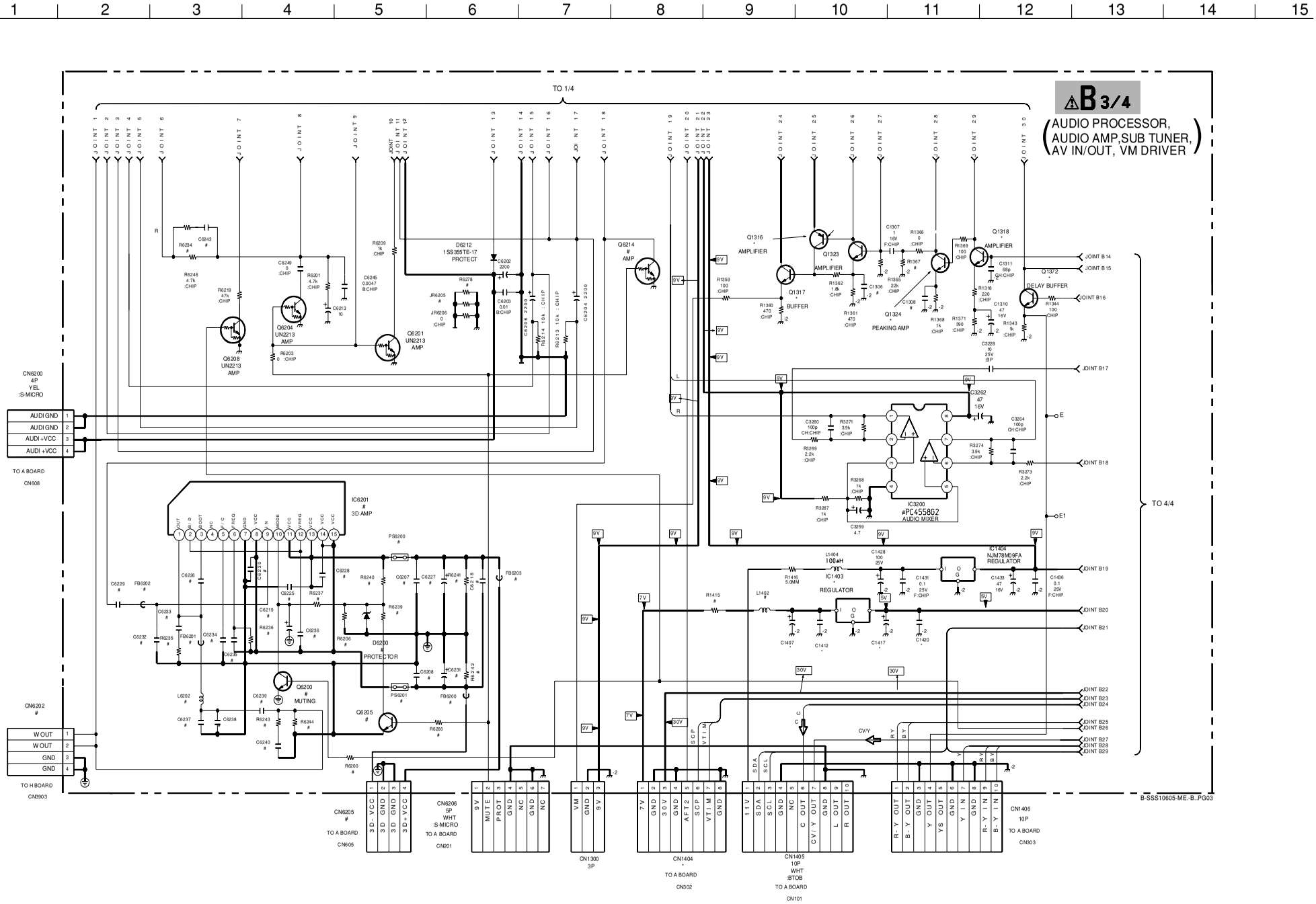

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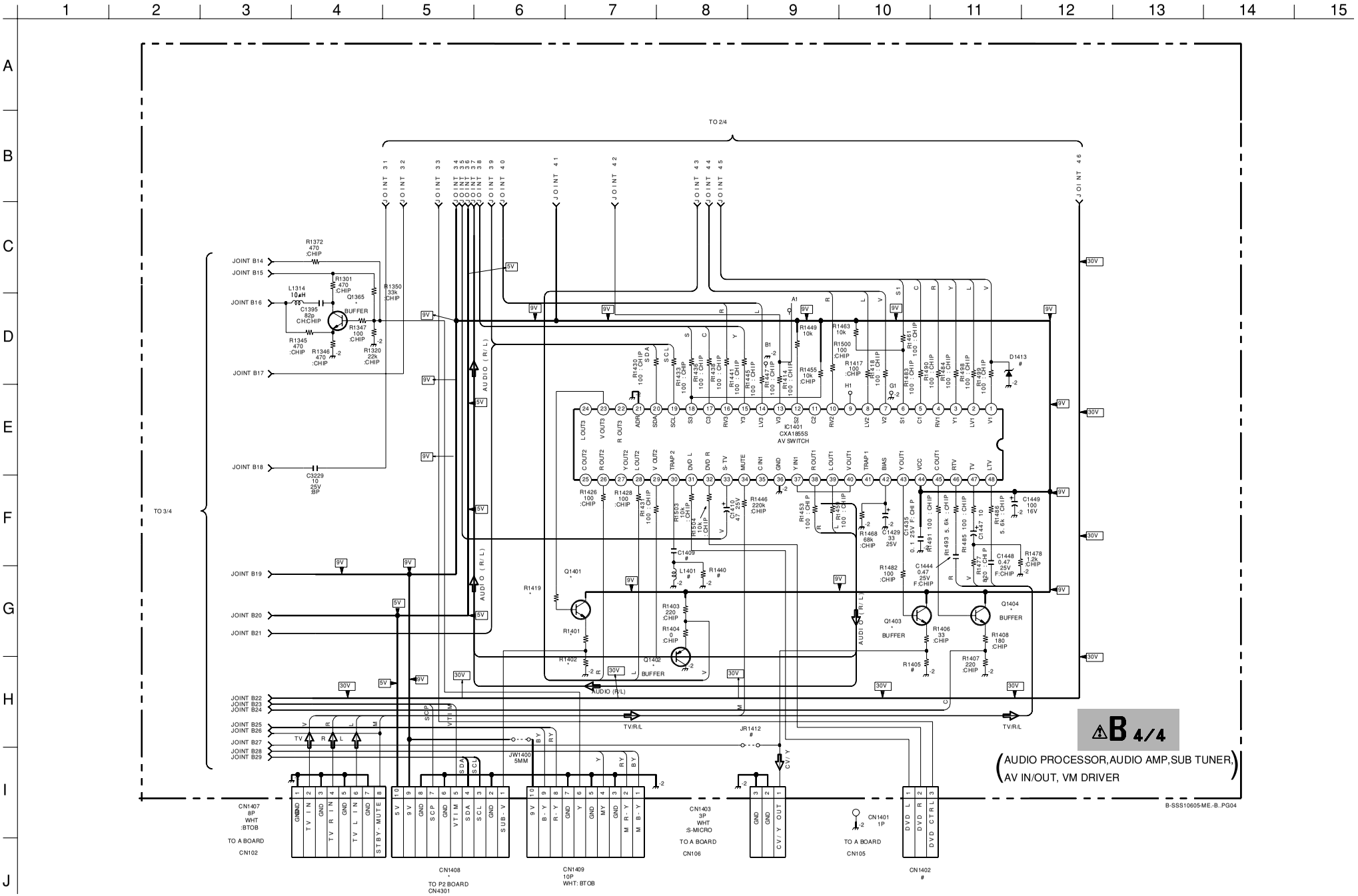

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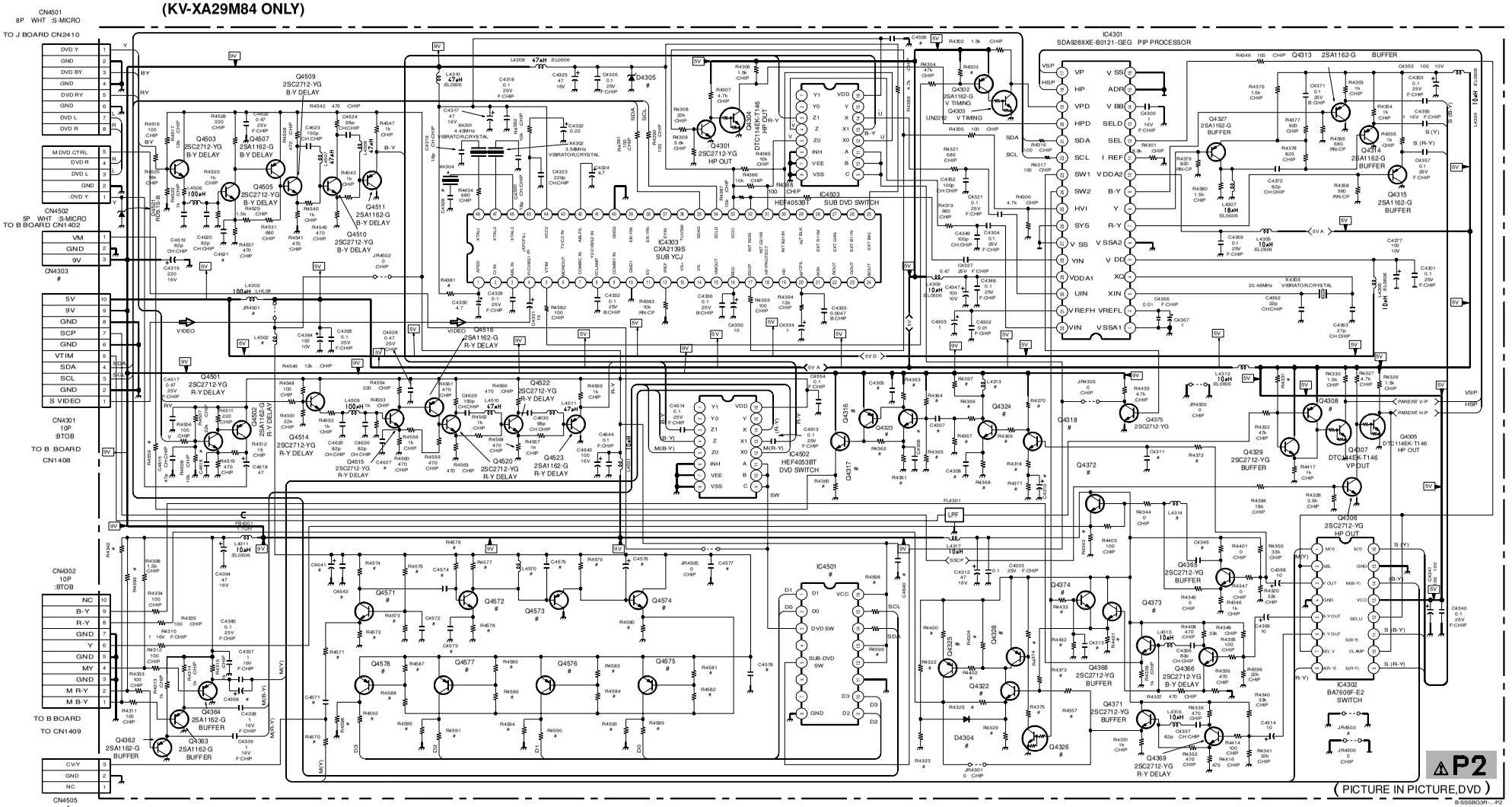
KV-XA29M60/XA29M84 RM-954 RM-953

(5) Schematic Diagram of P2 Board

(KV-XA29M84 ONLY)



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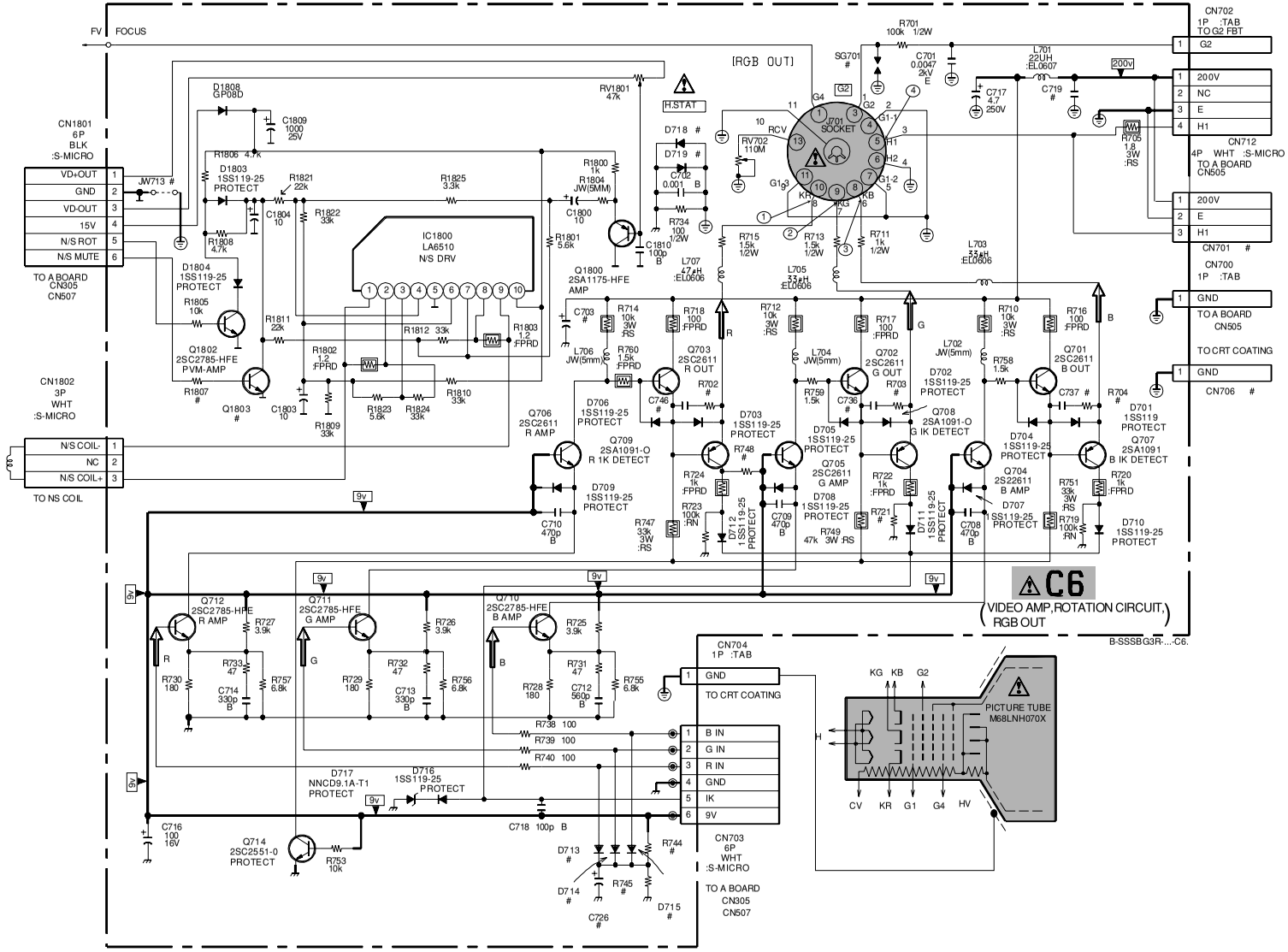
(6) Schematic Diagram of C6 Board



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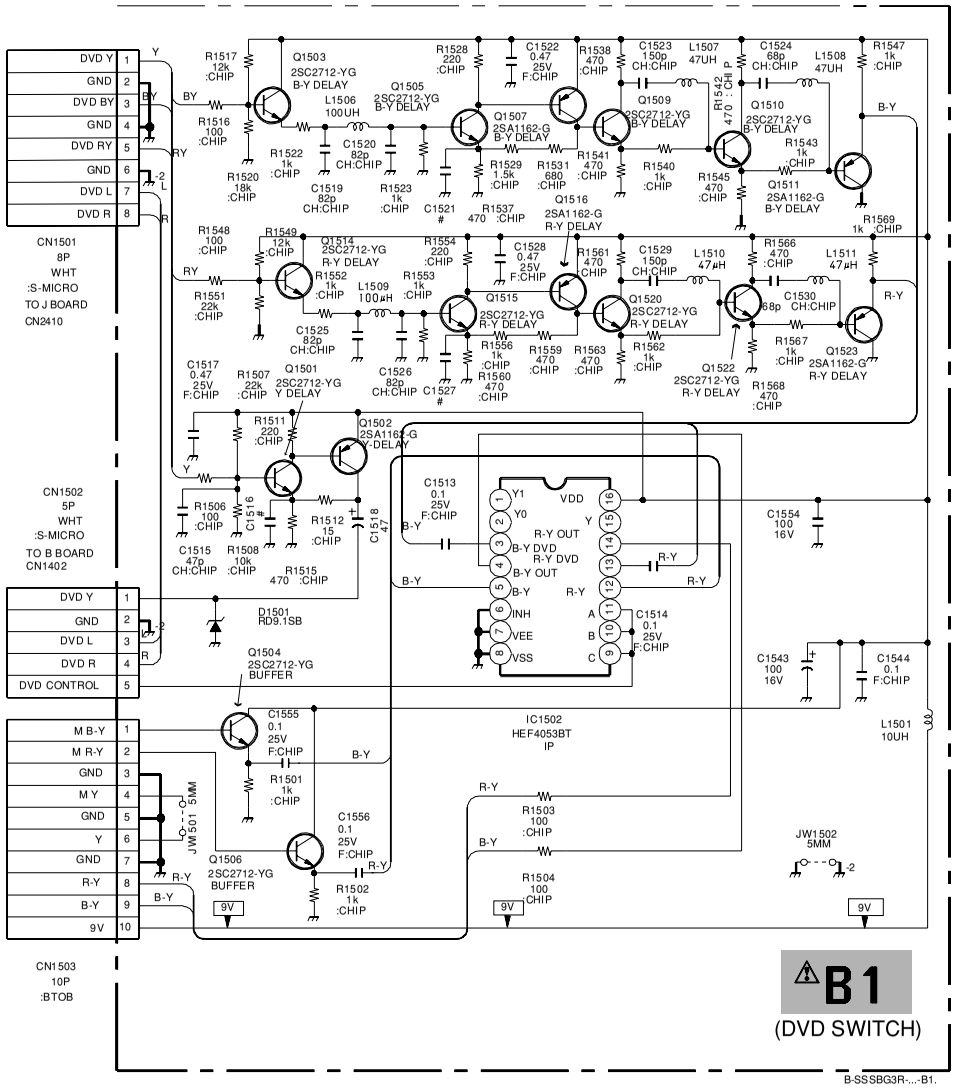
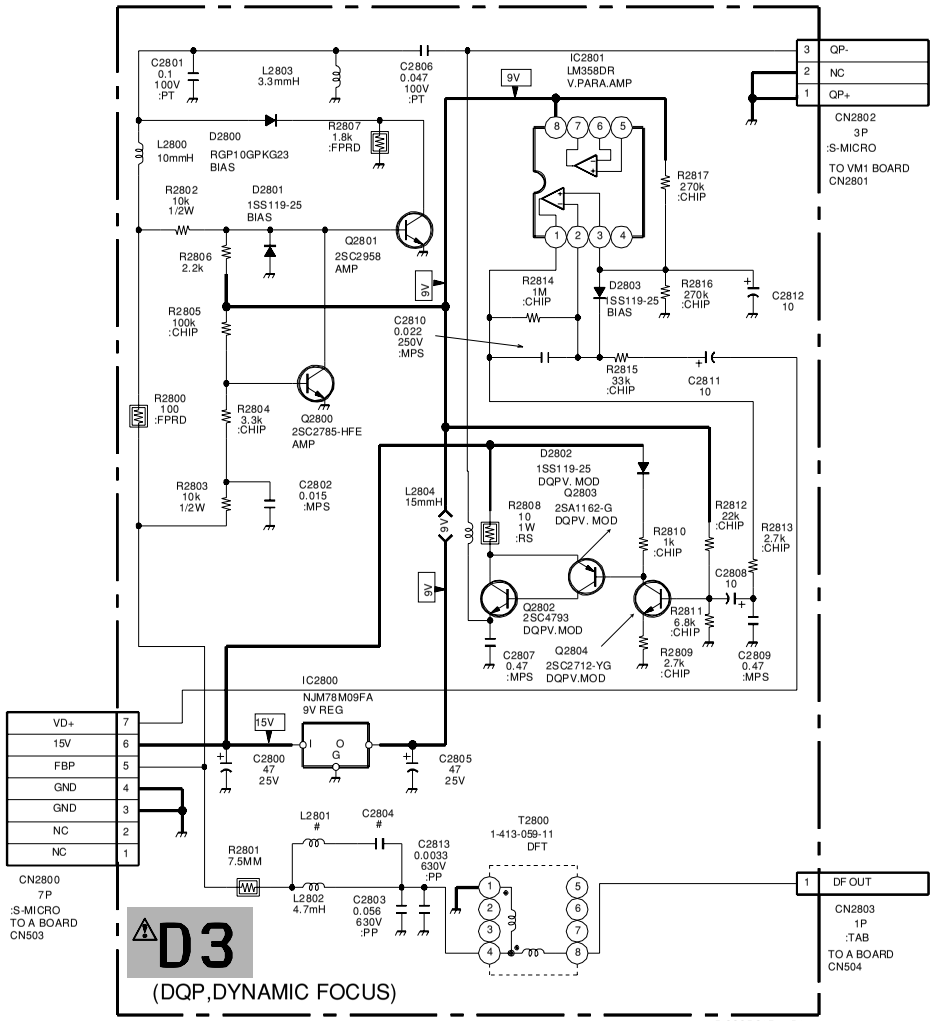
KV-XA29M60/XA29M84 RM-954 RM-953

(7) Schematic Diagrams of B1 and D3 Boards

(KV-XA29M60 only)





A Board ✲ Mark List

	KV-XA29M60	KV-XA29M84
C115	#	47
C116	#	0.1 25V
C117	#	0.1 25V
C311	10	4.7
C630	100 160V	560 160V
C632	2200 16V	3300 16V
CN302	#	8P
CN508	#	TAB 1P
CN602	#	2P
CN604	2P	3P
D100	1SS355TE-17	#
D316	RD7.5SB1.71	RD11SB2-T1
D638	11ES2-NTA2B	D1N 20R
FB101	#	0 :CHIP
FB102	#	0 :CHIP
IC100	80743AL-A7-S	#
JR107	0 :CHIP	#
JR109	#	0 :CHIP
R017	#	1.0K
R028	10K :CHIP	#
R101	100 :CHIP	#
R102	100 :CHIP	#
R582	#	330K :CHIP
TU101	BTF-WG441	BTF-LG434

Note: The parts indicated as "#" in this circuit diagram are not listed here, as they are not used for these models.

B Board ✲ Mark List

	KV-XA29M60	KV-XA29M84
C1407	#	100 16V
C1412	#	0.1 25V
C1417	#	100 16V
C1420	#	0.1 25V
C1430	#	0.1 25V
C1438	#	470P :CHIP
C1450	#	470P :CHIP
C1451	#	470P :CHIP
C1452	#	470P :CHIP
C1453	#	100 16V
C1454	#	47
C1455	#	47
C1456	#	100 16V
C1458	#	100 16V
CN1404	#	8P
CN1408	#	10P
D1401	UDZS-TE17-9.1B	RD9.1S-B
D1402	UDZS-TE17-9.1B	RD9.1S-B
D1403	UDZS-TE17-9.1B	RD9.1S-B
D1404	UDZS-TE17-9.1B	RD9.1S-B
D1405	UDZS-TE17-9.1B	RD9.1S-B
D1406	UDZS-TE17-9.1B	RD9.1S-B
D1407	UDZS-TE17-9.1B	RD9.1S-B
D1408	UDZS-TE17-9.1B	RD9.1S-B
D1409	UDZS-TE17-9.1B	RD9.1S-B
D1410	UDZS-TE17-9.1B	RD9.1S-B
D1411	UDZS-TE17-9.1B	RD9.1S-B
D1412	UDZS-TE17-9.1B	RD9.1S-B
D1415	UDZS-TE17-9.1B	RD9.1S-B
D1416	UDZS-TE17-9.1B	RD9.1S-B
D1418	UDZS-TE17-9.1B	RD9.1S-B
D6211	MA111-(K8).S0	1SS355TE-17
D6212	MA111-(K8).S0	1SS355TE-17
IC1403	#	TA7805S
JR1401	#	0 :CHIP
L1400	#	10UH
L1402	#	100UH
L1403	#	10UH
L1405	#	10UH
L1406	#	10UH
L1407	#	10UH
Q1316	2SA1037AK-T146	2SA1162-G
Q1317	2SC1623-L5L6	2SC2712-YG
Q1318	2SC1623-L5L6	2SC2712-YG
Q1323	2SC1623-L5L6	2SC2712-YG
Q1324	2SC1623-L5L6	2SC2712-YG
Q1365	2SC1623-L5L6	2SC2712-YG
Q1372	2SC1623-L5L6	2SC2712-YG
Q1401	#	2SC2712-YG
Q1402	2SA1037AK-T146	2SA1162-G
Q1403	2SC1623-L5L6	2SC2712-YG
Q1404	2SC1623-L5L6	2SC2712-YG
Q1410	#	2SC2712-YG
R1343	1K :CHIP	#
R1401	#	180 :CHIP
R1402	#	220 :CHIP
R1419	#	100 :CHIP
R1420	#	10K :CHIP
R1423	#	100 :CHIP
R1434	#	100 :CHIP
R1462	#	100 :CHIP
R1474	#	0 :CHIP
R1494	#	180 :CHIP
R1495	#	220 :CHIP
TU1401	#	BTF-LG436

Note: The parts indicated as "#" in this circuit diagram are not listed here, as they are not used for these models.

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6-4 VOLTAGE MEASUREMENTS

A (1/2) BOARD VOLTAGE LIST

Ref	Pin No	Voltage[v]
IC001	1	0
	2	4.9
	3	0.7
	4	4.9
	5	4.9
	6	0
	7	3.9
	8	4.8
	9	0.5
	10	4.8
	11	4.9
	12	0
	13	2.2
	14	2.1
	15	4.9
	16	4.9
	17	0
	18	4.9(0)
	19	2.7[2.1]
	20	2.7
	21	4.9
	22	0
	23	4.9
	24	0.6
	25	4.9
	26	4.9
	27	4.8
	28	4.9
	29	0
	30	0
	31	0
	32	0
	33	4.9
	34	0
	35	0
	36	2.5
	37	2.5
	38	4.8[5.0]
	39	4.9
	40	0[0.1]
	41	0.4
	42	0.9
	43	0[0.1]
	44	4.9
	45	4.9
	46	4.4
	47	4.9
	48	4.4
	49	0
	50	2.7
	51	0.1
	52	4.7(0.1)
IC002	1	0
	2	4.9
	3	4.9
	4	7.2
	5	4.9
	6	0
	7	0
IC003	1	0
	2	0
	3	0
	4	0
	5	4.9
	6	4.9
	7	0
	8	4.9
IC100	1	4.9
	2	4.9
	3	0
IC301	1	3.3
	2	5.0
	3	5.5[6.3]<4.8>
	4	5.0
	5	4.9
	6	4.32
	7	1.8
	8	3.7
	9	4.7
	10	3.8
	11	5.0
	12	0
	13	3.7
	14	2.4
	15	3.6
	16	3.5
	17	5.4
	18	7.7
	19	0.8
	20	3.6
	21	3.1
	22	3.9
	23	2.9<3.6>
	24	1.5
	25	1.5
	26	1.5
	27	0
	28	4.5
	29	4.5
	30	4.5
	31	8.8
	32	4.1
	33	4.1
	34	3.6
	35	8.7
	36	4.4
	37	4.5
	38	4.6
	39	4.6
	40	5.1
	41	5.1
	42	0
	43	5.0
	44	4.9
	45	8.6
	46	5.0
	47	8.7
	48	2.1(0.2)
	49	5.3(4.3)
	50	0
	51	0
	52	2.9
IC302	1	0.9(1.6)
	2	0
	3	1.3
	4	0
	5	4.9(1.7)
	6	4.9
	7	1.1[0]
	8	0[0.6]
	9	0.6(0)
	10	4.8(1.1)
	11	0.1(4.9)
	12	1.4(4.9)
	13	0
	14	1.7[0]
	15	0
	16	1.7(0.9)
IC502	1	0.9
	2	3.6
	3	1.7
	4	0
	5	2.9
	6	2.4
	7	6.9
	8	8.8
IC503	1	1.6
	2	13.2
	3	13.4
	4	14.7
	5	0.3
	6	13.3
	7	1.6
IC601	1	1.9
	2	0.1
	3	288.5
	4	17.0
	5	0
IC602	1	122.4
	2	135.1
	3	0
IC603	I	7.5[12.36]
	3	3.8
	4	17.0
PH600	1	129.1
	2	128.1
	3	3.8
	4	17.0
Q002	B	0
	C	4.9
	E	0

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A(2/2) BOARD VOLTAGE LIST

Ref	Pin No	Voltage[v]	Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]
Q101	B	2.8	Q311	B	0	Q509	B	0.6
	C	8.8		C	8.9		C	0.1
	E	2.2		E	0		E	0
Q301	B	12.4	Q313	B	0	Q511	B	-0.1
	C	0		C	12.2		C	123.1
	E	12.2		E	0		E	122.9(0)
Q302	B	1.7	Q314	B	0.5	Q600	B	0
	C	8.1		C	0		C	12.4
	E	1.1		E	1.1		E	0
Q303	B	8.1	Q315	B	0	Q601	B	-0.8
	C	1.8		C	1.6		C	-0.5
	E	8.7		E	0		E	-0.7
Q304	B	3.6	Q316	B	0(4.0)	Q602	B	0
	C	0		C	0		C	16.
	E	4.3		E	4.7		E	0
Q305	B	0(8.1)	Q501	B	3.5	Q603	B	16.9
	C	1.9(1.5)		C	0		C	0
	E	8.7		E	4.0		E	17.0
Q306	B	1.7	Q502	B	4.2	Q604	B	133.9
	C	8.1		C	2.4		C	0
	E	1.1		E	4.0		E	133.9
Q307	B	4.3	Q503	B	0	Q605	D	391.8
	C	8.7		C	3.6		G	112.7
	E	3.7		E	0		S	112.4
Q308	B	3.5	Q505	D	16.4	Q606	B	113.2
	C	0.5		G	6.9		C	113.2
	E	0.8		S	0		E	112.3
Q309	B	4.8(0)	Q506	B	-0.6	Q607	B	0.8
	C	0(4.9)		C	90.2		C	0.1
	E	0		E	0		E	0
Q310	B	2.1(0)[0.2]	Q507	B	12.7	Q608	B	0
	C	4.9		C	0(0.4)		C	0.8
	E	1.2(0)		E	13.2		E	0

B1 BOARD VOLTAGE LIST (KV-XA29M60 ONLY)

Ref	Pin No	Voltage[v]	Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]
IC1502	1	3.1	Q1502	B	2.3	Q1511	B	0.7
	2	3.0		C	2.3		C	0.7
	3	3.2		E	2.5		E	0
	4	4.6	Q1503	B	0.6	Q1514	B	0.6
	5	4.6		C	0.6		C	0.6
	6	0		E	0.6		E	0.6
	7	0	Q1505	B	0.6	Q1515	B	0.6
	8	0		C	0.8		C	0.6
	9	8.1		E	0		E	0.6
	10	7.9	Q1507	B	0.7	Q1516	B	0.5
	11	7.9		C	0.8		C	0.5
	12	7.6		E	0.7		E	0.5
	13	7.6	Q1509	B	0.8	Q1520	B	0.5
	14	7.3		C	0.8		C	0.4
	15	7.6		E	0		E	0
	16	7.6	Q1510	B	0.7	Q1522	B	0.4
Q1501	B	2.5		C	0.7		C	0
	C	2.4		E	0		E	0.5
	E	2.4				Q1523	B	0.4
							C	0
							E	0.5

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B(1/2) BOARD VOLTAGE LIST

Ref	Pin No	Voltage[v]
IC1401	1	3.9
	2	3.9
	3	3.9
	4	3.9
	5	3.9
	6	8.1
	7	3.9
	8	3.9
	9	3.9
	10	3.9
	11	3.9
	12	8.1
	13	3.9
	14	3.9
	15	3.9
	16	3.9
	17	3.9
	18	8.1
	19	4.4
	20	4.4
	21	0
	22	3.9
	23	3.8
	24	3.9
	25	3.8
	26	3.9
	27	3.8
	28	3.9
	29	3.8
	30	3.8
	31	3.9
	32	3.9
	33	3.8
	34	0
	35	3.8
	36	0
	37	3.8
	38	3.9
	39	3.9
	40	3.8
	41	3.8
	42	4.0
	43	3.7
	44	8.8
	45	3.8
	46	3.8
	47	3.8
	48	3.8
IC1402	1	4.8
	2	2.4
	3	2.4
	4	0
	5	2.4
	6	2.4
	7	4.9
	8	9.0
IC1403	I	7.4
	G	0
	O	8.8
IC1404	I	12.1
	G	0
	O	8.8
IC3200	1	4.4
	2	4.4
	3	4.4
	4	0
	5	4.4
	6	4.4
	7	4.4
	8	8.8
IC3201	1	0.1
	2	0.1
	3	8.8
	4	4.4
	5	4.4
	6	4.4
	7	4.4
	8	0
	9	4.4
	10	4.4
	11	4.4
	12	4.4
	13	4.4
	14	4.4
	15	4.4
	16	4.4
IC3202	1	4.4
	2	4.4
	3	4.3
	4	0
	5	4.3
	6	4.4
	7	4.4
	8	8.8
IC3203	1	4.4
	2	4.4
	3	4.4
	4	4.4
	5	8.7
	6	0.4
	7	0
	8	0.3
	9	0.3
	10	0.3
	11	0.3
	12	0.3
	13	8.7
	14	8.8
IC3204	1	4.4
	2	4.4
	3	4.2
	4	0
	5	4.3
	6	4.4
	7	4.4
	8	8.8
IC3205	1	0.1
	2	0.1
	3	8.7
	4	0.4
	5	0.4
	6	0.4
	7	0.4
	8	0
	9	2.2
	10	2.3
	11	0
	12	0
	13	8.8
	14	4.5
	15	4.4
	16	8.8
IC3206	1	0
	2	0
	3	0(0.1)
	4	4.4
	5	0(4.4)
	6	4.4
	7	4.4
	8	4.4
	9	4.4
	10	4.4
	11	4.4
	12	4.4
	13	0(1.6)
	14	2.0
	15	8.8
	16	0.1
	17	4.4
	18	4.4
	19	2.0
	20	1.6[0.1]
	21	4.4
	22	4.4
	23	4.4
	24	0(4.4)
	25	4.4
	26	4.4
	27	4.4
	28	4.4
	29	4.4
	30	4.4
	31	3.1
	32	4.4
IC6200	1	1.6
	2	0
	3	0
	4	0
	5	1.6
	6	9.8
	7	13.6
	8	5.0
	9	28.9
	10	0
	11	4.1
	12	13.2

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B(2/2) BOARD VOLTAGE LIST

Ref	Pin No	Voltage[v]	Ref	Pin No	Voltage[v]	Ref	Pin No	Voltage[v]
Q1316	B	8.2	Q1402	B	3.8	Q3201	D	4.2
	C	4.9		C	0		G	39
	E	8.8		E	4.4		S	4.2
Q1317	B	4.9	Q1403	B	3.7	Q3203	B	4.0
	C	8.8		C	8.8		C	8.6
	E	4.3		E	3.1		E	3.5
Q1318	B	3.1	Q1404	B	3.8	Q3204	D	4.2
	C	6.9		C	8.8		G	3.9
	E	2.4		E	3.1		S	4.3
Q1323	B	4.9(2.7)	Q1405	B	3.9	Q6201	B	0
	C	8.8		C	5.6		C	4.1
	E	4.3(2.1)		E	3.2		E	0
Q1324	B	6.9	Q1406	B	3.9	Q6203	B	0
	C	8.8		C	5.6		C	0
	E	6.3		E	3.2		E	0
Q1365	B	3.1	Q1408	B	5.6	Q6204	B	0
	C	6.3		C	8.8		C	0
	E	2.4		E	5.0		E	0
Q1372	B	2.4	Q1409	B	2.4	Q6208	B	0
	C	8.8		C	5.6		C	9.7
	E	1.8		E	1.8		E	0
Q1401	B	3.8	Q1410	B	3.8			
	C	8.8		C	8.7			
	E	3.1		E	3.2			

P2 (2/2) BOARD VOLTAGE LIST (KV-XA29M84 ONLY)

Ref	Pin No	Voltage[v]	Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]
Q4363	B	4.7	Q4502	B	8.1	Q4514	B	5.6
	C	0		C	2.0		C	8.8
	E	5.3		E	8.8		E	5.0
Q4364	B	4.2	Q4503	B	5.2	Q4515	B	2.4
	C	0		C	8.8		C	8.1
	E	4.9		E	4.5		E	1.8
Q4366	B	3.2	Q4505	B	2.2	Q4516	B	8.1
	C	3.4		C	8.1		C	3.2
	E	2.6		E	1.6		E	8.8
Q4368	B	2.6	Q4507	B	8.1	Q4520	B	3.2
	C	8.8		C	2.9		C	6.2
	E	0		E	8.8		E	2.5
Q4369	B	3.2	Q4509	B	3.0	Q4522	B	0
	C	6.2		C	6.4		C	6.8
	E	2.6		E	2.3		E	1.9
Q4371	B	2.6	Q4510	B	2.4	Q4523	B	1.9
	C	8.8		C	7.1		C	0
	E	1.9		E	1.7		E	2.6
Q4501	B	2.7	Q4511	B	1.7			
	C	8.1		C	0			
	E	2.0		E	2.4			

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P2 (1/2) BOARD VOLTAGE LIST (KV-XA29M84 ONLY)

Ref	Pin No	Voltage[v]
IC4301	1	0
	2	2.9
	3	2.4
	4	2.4
	5	5.0
	6	0
	7	0.3
	8	0
	9	0.4
	10	5.0
	11	2.0
	12	0
	13	0.1
	14	3.0
	15	0
	16	0
	17	4.9
	18	0.3
	19	5.0
	20	0.3
	21	4.5
	22	4.4
	23	0.8
	24	0.8
	25	1.0
	26	0
	27	0
	28	2.0
	29	5.0
	30	0.4
	31	4.0
	32	2.3
IC4302	1	3.1
	2	0
	3	1.7
	4	0
	5	1.5
	6	0
	7	0
	8	3.0
	9	3.0
	10	0.3
	11	3.0
	12	0
	13	5.0
	14	3.0
	15	0
	16	3.0
IC4303	1	3.3
	2	5.1
	3	2.6
	4	5.1
	5	4.7
	6	4.3
	7	0.5
	8	4.7
	9	5.1
	10	0
	11	3.4
	12	2.4
	13	3.4
	14	3.6
	15	5.4
	16	7.6
	17	1.0
	18	3.5
	19	0.5
	20	3.8
	21	0.4
	22	0.2
	23	0.2
	24	0.2
	25	7.4
	26	3.8
	27	3.8
	28	3.8
	29	0
	30	4.0
	31	4.0
	32	3.7
	33	8.7
	34	4.3
	35	4.4
	36	0
	37	3.7
	38	4.3
	39	4.3
	40	0
	41	5.0
	42	7.2
	43	5.0
	44	8.7
	45	4.3
	46	0
	47	0
	48	2.8
IC4502	1	0.4
	2	0.4
	3	0
	4	2.9
	5	2.9
	6	0
	7	0
	8	0
	9	0
	10	0
	11	0
	12	0
	13	0.2
	14	2.9
	15	0.4
	16	8.8
IC4503	1	0
	2	0.1
	3	2.6
	4	4.0
	5	4.0
	6	0
	7	0
	8	0
	9	0
	10	0
	11	0
	12	4.0
	13	2.4
	14	0
	15	0.2
	16	8.7
Q4300	B	5.4
	C	0
	E	6.1
Q4301	B	0.2
	C	3.4
	E	0
Q4302	B	4.7
	C	0.1
	E	5.0
Q4303	B	0.1
	C	4.9
	E	0
Q4304	B	3.4
	C	0.3
	E	0
Q4305	B	3.3
	C	0.3
	E	0
Q4306	B	0.2
	C	3.3
	E	0
Q4307	B	0
	C	4.9
	E	0
Q4308	B	4.8
	C	0
	E	5.0
Q4309	B	0.8
	C	0
	E	0
Q4310	B	0.8
	C	0
	E	0
Q4313	B	0.4
	C	0
	E	1.1
Q4314	B	0.7
	C	0
	E	1.3
Q4315	B	0.3
	C	0
	E	1.0
Q4327	B	0
	C	0
	E	0.6
Q4362	B	4.7
	C	0
	E	5.3

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C6 BOARD VOLTAGE LIST

Ref	Pin No	Voltage(V)	Ref	Pin No	Voltage(V)
IC1800	1	4.8	Q708	B	159.1(161)[162.5]<152.7>
	2	4.7		C	4.2(3.6)[3.4]<5.0>
	3	5.6		E	155.2(156.5)[158.2]<148.7>
	4	5.6	Q709	B	162.6[165.7]<155.9>
	5	0		C	3.4[3.2]<4.6>
	6	5.8		E	158.5(160.1)[162.1]<151.8>
	7	5.8	Q710	B	1.5<1.7>
	8	7.2		C	8.3
	9	7.2		E	1.2
	10	12.7	Q711	B	1.6(1.5)
Q701	B	157.8[161.1]<152.1>		C	8.3
	C	202.5[202.3]		E	1.2(1.1)
	E	158.3[161.3]<152.3>	Q712	B	1.5(1.4)
Q702	B	158.8(160.9) [162.4]<153.2>		C	8.3
	C	202.6[202.4]		E	1.1
	E	158.6(160)[162.4]<152.7>	Q714	B	0.7(0.5)
Q703	B	162.8(164) [166.1]<155.8>		C	0.2(0)
	C	202.4		E	0<0.1>
	E	163.1[165.7]<155.9>	Q1800	B	3.9
Q704	B	8.9[8.7]		C	0
	C	156.4(158.3)[160.3]<150.7>		E	4.6
	E	8.3[8.1]	Q1802	B	0.5
Q705	B	8.9		C	2.0
	C	158.8(161)[162.4]<152.8>		E	0
	E	8.3	Q1803	B	0
Q706	B	8.9(8.6)		C	4.9
	C	162.8[166.1]<155.7>		E	0
	E	8.3(8.1)	J701	KR	16.1[162.4]<152.5>
Q707	B	159.1[161.2]<152.5>		KG	156[158.7]<149.3>
	C	3.9[4.7]<3.2>		KB	156[157.8]<149.8>
	E	155.1[157.9]<148.6>		HI	0
				G2	301.1(303.6)[305.5]<298.6>

VM1 BOARD VOLTAGE LIST

Ref	Pin No	Voltage[v]	Ref	Pin No.	Voltage[v]
Q5901	B	2.6	Q5906	B	0
	C	8.8		C	0.2
	E	2.0		E	0
Q5902	B	0.5	Q5907	B	0.8
	C	0.1		C	0
	E	0.5		E	0
Q5903	B	2.6	Q5908	B	4.3
	C	4.6		C	0
	E	2.0		E	0
Q5904	B	4.6	Q5909	B	0
	C	0		C	8.8
	E	5.0		E	4.3
Q5905	B	5.6			
	C	8.8			
	E	5.0			

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D3 BOARD VOLTAGE LIST

Ref	Pin No	Voltage[v]	Ref	Pin No.	Voltage[v]
IC2800	I	13.3	Q2801	B	0.3
	G	0		C	1.9
	O	9.1		E	0
IC2801	1	4.5	Q2802	B	13.3
	2	4.5		C	13.3
	3	4.5		E	13.3
	4	0	Q2803	B	12.7
	5	0.5		C	13.3
	6	0.5		E	13.3
	7	7.9	Q2804	B	2.1
	8	9.1		C	12.7
Q2800	B	0.3		E	1.5
	C	0.3			
	E	0			

H BOARD VOLTAGE LIST

Ref	Pin No	Voltage[v]
IC3901	1	4.9
	2	4.9
	3	0
Q3901	B	0.1
	C	4.9
	E	0.1
Q3902	B	4.7
	C	2.2
	E	1.8

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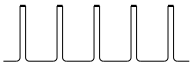
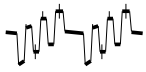
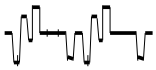
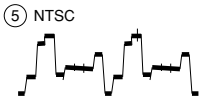
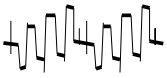
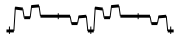
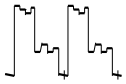
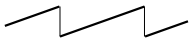
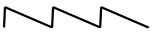
6-5 WAVEFORM

A BOARD WAVEFORMS

①  4.8Vp-p (V)	② 5.1Vp-p (V)	③ 4.0Vp-p (V)	④ PAL/SECAM  1.2Vp-p (H)	④ NTSC  1.5Vp-p (H)
⑤ PAL/SECAM 1.0Vp-p (V)	⑤ NTSC  1.1Vp-p (V)	⑥ 0.2Vp-p (H)	⑦ PAL/SECAM  1.2Vp-p (H)	⑦ NTSC  1.4Vp-p (H)
⑧ PAL/SECAM 1.2Vp-p (H)	⑧ NTSC 1.2Vp-p (H)	⑨ PAL/SECAM 1.5Vp-p (H)	⑨ NTSC 1.5Vp-p (H)	⑩ PAL/SECAM 3.2Vp-p (H)
⑩ NTSC 3.4Vp-p (H)	⑪  3.4Vp-p (H)	⑫ PAL/SECAM 3.2Vp-p (H)	⑫ NTSC 3.58 3.2Vp-p (H)	⑫ NTSC 4.43 3.4Vp-p (H)
⑬ PAL/SECAM/NTSC 3.58  1.3Vp-p (H)	⑭ 106Vp-p	⑮ 240Vp-p	⑯  1.1Vp-p (V)	

C6 BOARD WAVEFORMS

① 113Vp-p (H)	② PAL/SECAM 120Vp-p (H)	② NTSC 113Vp-p (H)
③ PAL/SECAM PAL : 116Vp-p (H) SECAM : 126Vp-p (H)	③ NTSC 117Vp-p (H)	④ 22Vp-p (H)

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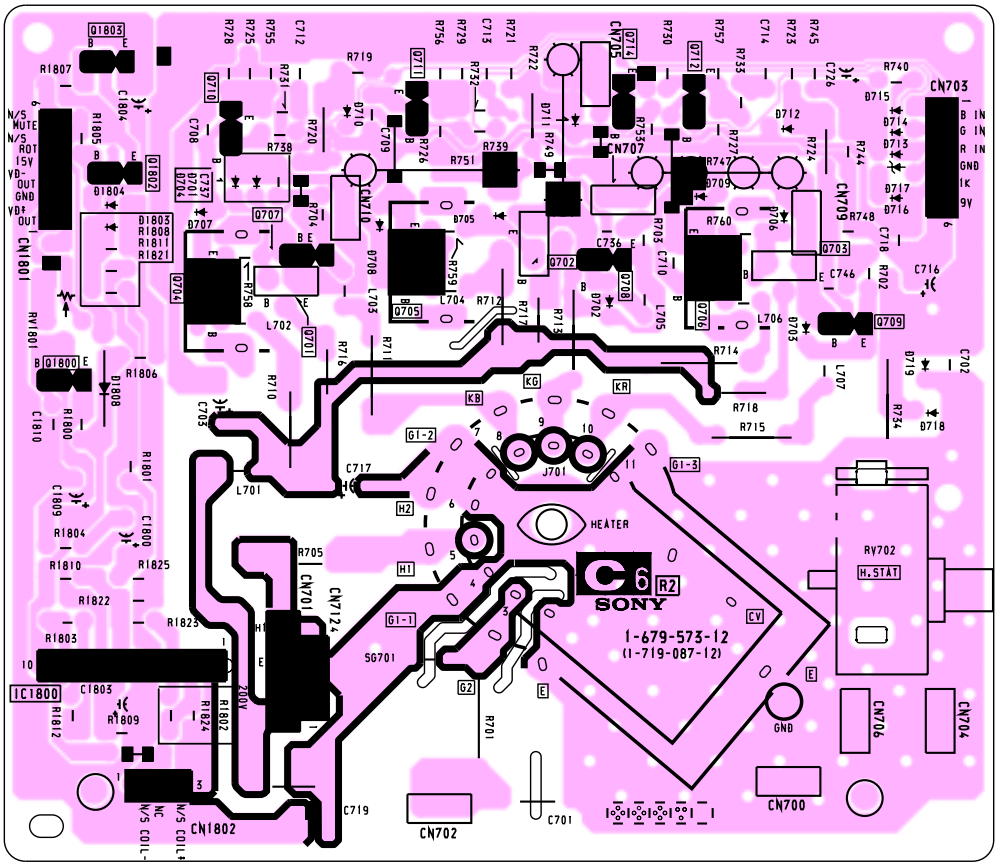
6-6. PRINTED WIRING BOARDS AND PARTS LOCATION

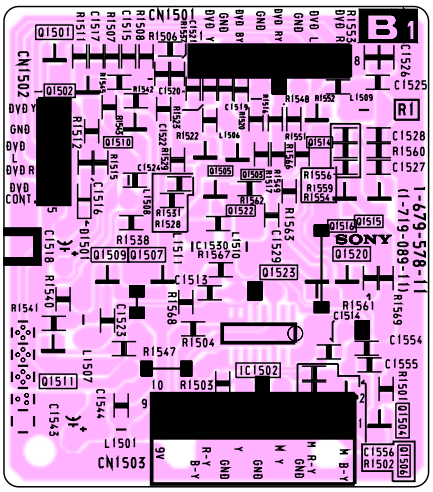
PRINTED WIRING BOARDS

C6 [VIDEO AMP, ROTATION CIRCUIT] **B1** [DVD SWITCH]

– C6 Board –



– B1 Board – (KV-XA29M60 ONLY)



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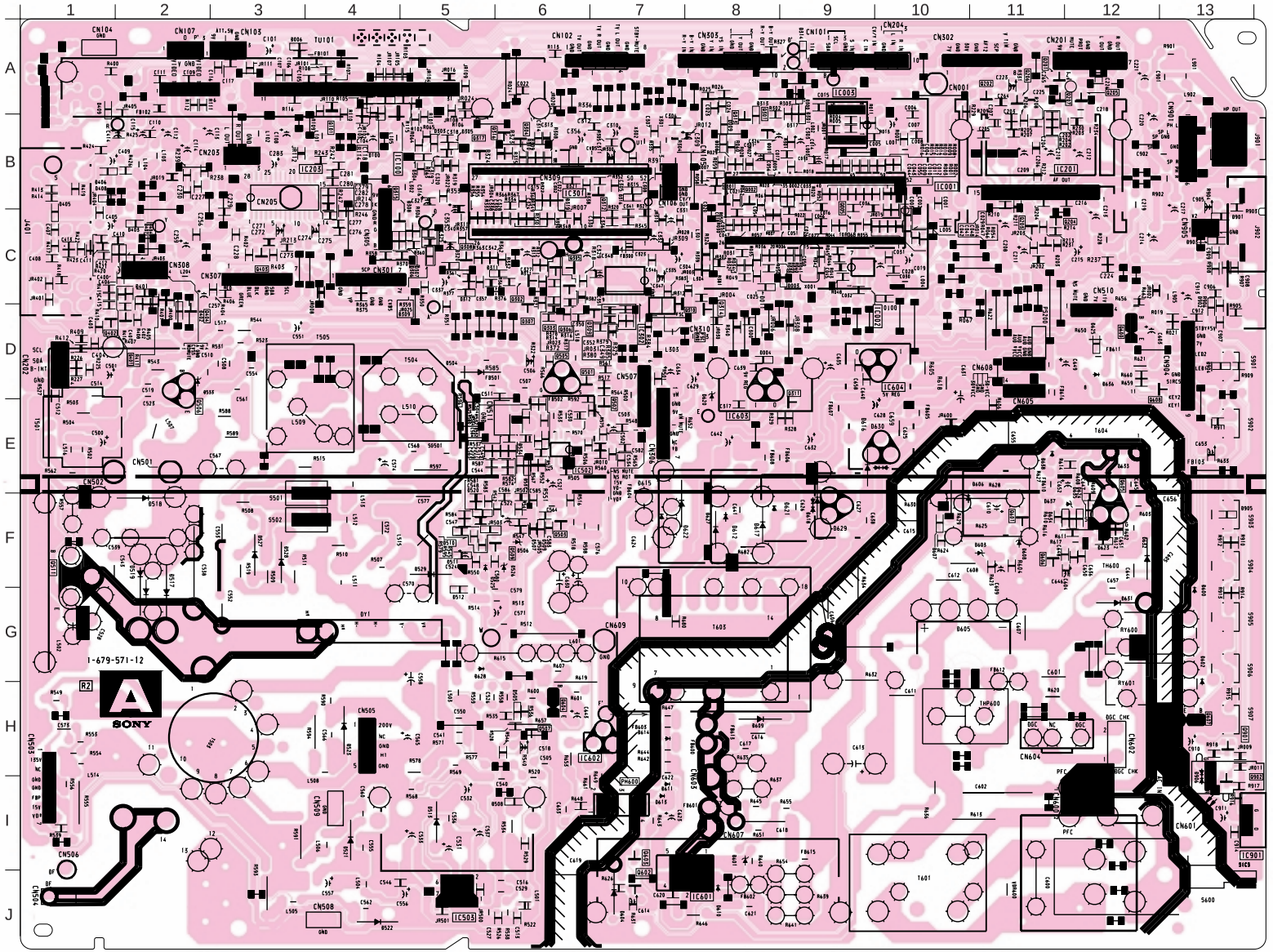
KV-XA29M60/XA29M84 RM-954 RM-953

PRINTED WIRING BOARD

A [SYSTEM CONTROLLER, Y/C JUNGLE, DEFLECTION, TUVIF, FRONT AMP, POWER SUPPLY]

– A Board –

NOTE:
The circuit indicated at left contains high voltage of over 1220 Vp-p. Please pay attention when inspecting or re-pairing it to prevent an electric shock.



A BOARD

IC		TRANSISTOR	
IC001	B-10	Q001	B-8
IC002	D-10	Q002	B-8
IC003	A-9	Q005	B-9
IC100	B-4	Q101	B-4
IC201	B-12	Q201	A-11
IC203	B-4	Q202	A-11
IC301	B-6	Q203	C-11
IC302	D-7	Q204	C-12
IC502	E-6	Q205	A-12
IC503	J-5	Q206	A-11
IC601	J-8	Q207	A-12
IC602	H-6	Q301	A-8
IC603	E-8	Q302	C-6
IC604	D-10	Q303	D-6
IC901	I-13	Q304	B-6
PH600	1-7	Q305	C-6
		Q306	D-6
		Q307	D-6
		Q308	C-5
		Q309	D-6
		Q310	D-8
		Q311	D-9
		Q312	B-7
		Q313	B-8
		Q314	D-8
		Q315	B-4
		Q316	B-5
		Q317	B-5
		Q401	D-2
		Q402	D-1
		Q403	C-3
		Q404	D-2
		Q501	D-6
		Q502	E-7
		Q503	F-6
		Q505	D-6
		Q506	E-2
		Q507	H-6
		Q509	F-6
		Q511	F-1
		Q600	D-12
		Q601	F-11
		Q602	I-7
		Q603	I-7
		Q604	H-6
		Q605	E-12
		Q606	F-11
		Q607	H-13
		Q608	D-12
		Q901	H-13
		Q902	H-13

DIODE			
D001	B-8	D523	H-4
D002	B-9	D525	F-5
D003	C-9	D526	F-6
D004	D-8	D527	F-3
D005	B-8	D528	F-3
D006	A-3	D529	F-5
D007	B-8	D531	E-6
D008	B-8	D533	D-2
D009	B-8	D534	E-6
D010	D-10	D600	G-13
D011	C-8	D601	I-8
D100	B-4	D602	G-13
D203	C-11	D603	F-11
D300	A-9	D604	J-7
D301	B-9	D605	G-10
D303	B-5	D606	E-11
D304	B-5	D607	F-10
D305	B-5	D608	F-11
D306	C-5	D609	H-8
D307	C-5	D610	J-8
D308	B-5	D611	I-7
D309	D-5	D612	F-8
D311	C-5	D613	I-7
D312	C-5	D615	E-7
D313	A-8	D616	E-9
D314	A-9	D617	F-8
D315	B-7	D618	F-9
D316	B-7	D620	D-8
D317	B-9	D621	F-9
D319	B-6	D622	F-8
D320	C-5	D623	F-12
D321	B-6	D624	E-12
D322	B-6	D625	D-12
D401	C-2	D627	F-8
D402	D-2	D628	G-5
D403	C-2	D629	F-9
D404	C-2	D630	E-10
D405	B-1	D631	G-12
D406	B-1	D632	F-12
D407	C-2	D633	E-12
D408	B-1	D634	F-11
D409	A-1	D635	E-12
D504	D-5	D636	D-12
D505	H-6	D637	F-11
D506	F-6	D638	E-11
D507	F-6	D901	C-13
D508	I-5	D902	C-13
D509	F-6	D903	C-13
D510	F-5	D904	C-13
D511	F-5	D905	F-13
D512	G-5	D906	H-13
D513	I-5		
D517	F-2		
D518	F-2		
D519	F-2		
D520	E-5		
D521	I-4		
D522	J-4		

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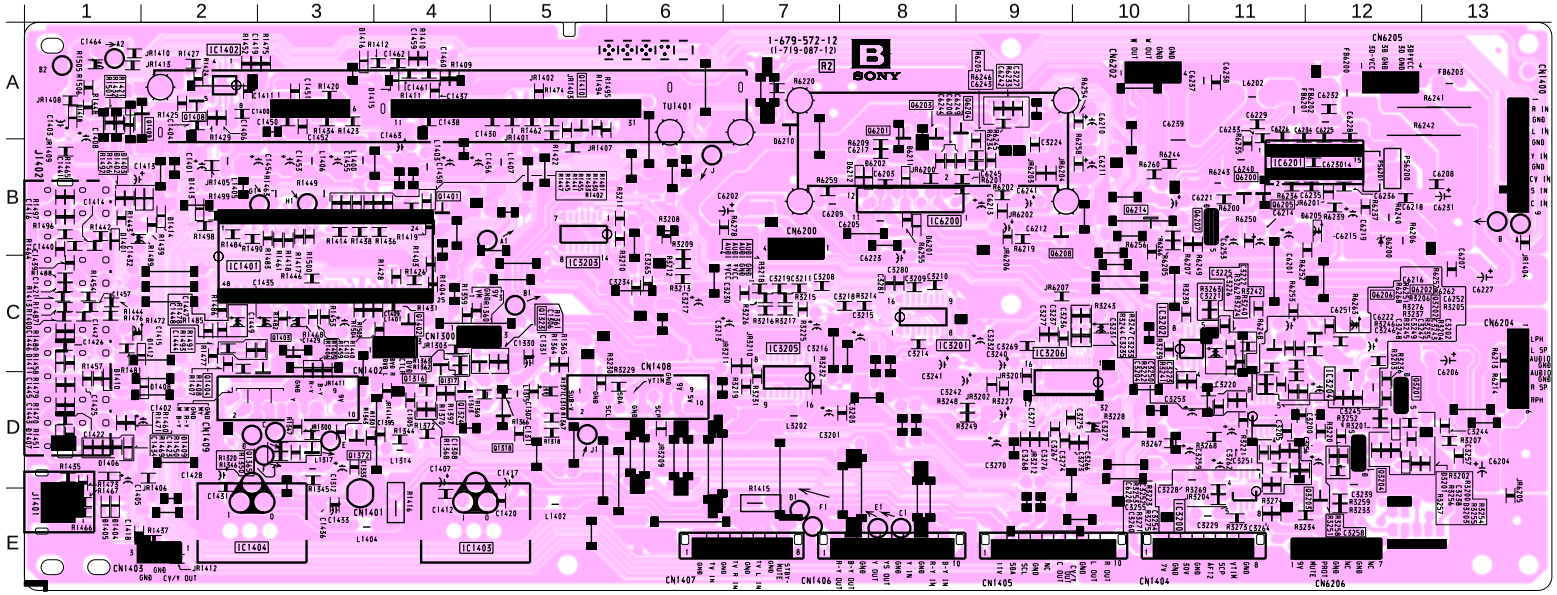
KV-XA29M60/XA29M84 RM-954 RM-953

PRINTED WIRING BOARD

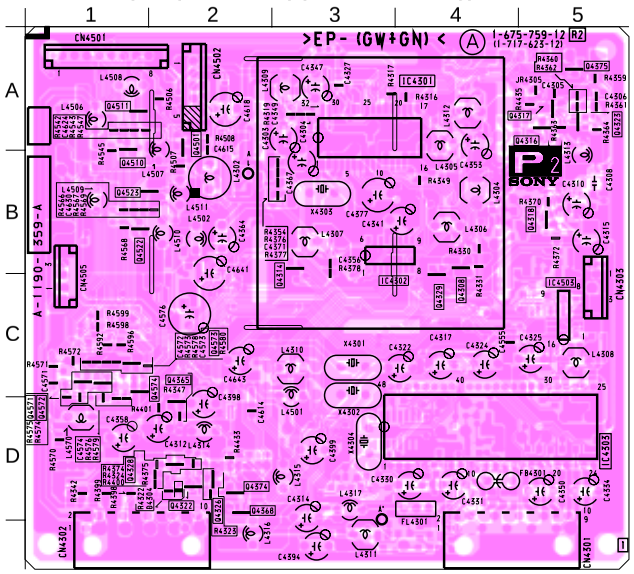
B [AUDIO PROCESSOR, AUDIO AMP, SUB TUNER, AV IN/OUT, VM DRIVER]

P2 [PICTURE IN PICTURE, DVD]

– B Board –



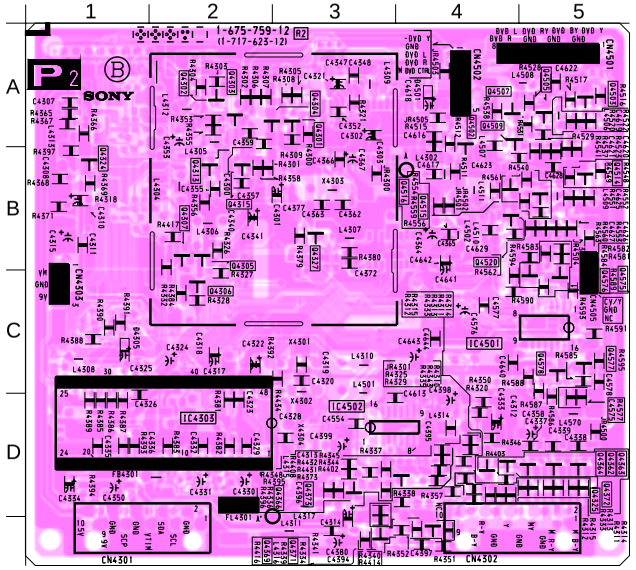
– P2 Board – (Component Side) (KV-XA29M84 only)



P2 A BOARD

IC		Q4522	B-1
		Q4523	B-1
IC4301	A-4	Q4571	D-1
IC4302	C-3	Q4572	D-1
IC4303	D-5	Q4573	C-2
IC4503	C-5	Q4574	C-2
TRANSISTOR		DIODE	
Q4308	C-4	D4304	D-1
Q4314	C-3		
Q4316	A-5		
Q4317	A-5		
Q4318	B-5		
Q4322	D-2		
Q4323	A-5		
Q4326	D-2		
Q4328	D-1		
Q4329	C-4		
Q4365	C-2		
Q4368	D-2		
Q4374	D-2		
Q4375	A-5		
Q4501	A-2		
Q4510	B-1		
Q4511	A-1		

– P2 Board – (Conductor Side)



P2 B BOARD

IC		Q6202	C-12
		Q6203	A-8
IC1401	C-2	Q6204	A-9
IC1402	A-2	Q6205	B-11
IC1403	E-4	Q6206	C-12
IC1404	E-2	Q6207	B-11
IC3200	E-10	Q6208	B-9
IC3201	C-9	Q6214	B-10
IC3202	C-10	DIODE	
IC3203	C-5		
IC3204	D-12	D1401	B-1
IC3205	C-7	D1402	B-1
IC3206	C-9	D1403	B-1
IC6200	B-8	D1404	E-1
IC6201	B-11	D1405	E-1
TRANSISTOR		D1406	D-1
		D1407	D-1
Q1316	D-4	D1408	D-2
Q1317	D-4	D1409	D-2
Q1318	D-5	D1410	D-1
Q1323	C-5	D1411	C-1
Q1324	D-4	D1412	C-2
Q1365	D-2	D1413	B-2
Q1372	D-3	D1414	B-2
Q1401	B4	D1415	A-3
Q1402	C-4	D1416	A-3
Q1403	C-3	D1418	A-1
Q1404	D-2	D3201	D-13
Q1408	A-2	D3203	E-13
Q1409	A-2	D3204	D-12
Q1410	A-5	D6200	B-12
Q3201	D-12	D6201	B-8
Q3202	C-13	D6202	B-8
Q3203	E-12	D6205	B-12
Q3204	D-12	D6210	B-7
Q6200	B-11	D6211	B-8
Q6201	A-8	D6212	B-8

P2 B BOARD

IC		Q4372	D-5
		Q4373	D-3
IC4303	D-2	Q4502	A-4
IC4501	C-1	Q4503	A-5
IC4502	D-3	Q4505	A-5
TRANSISTOR		Q4507	A-4
		Q4509	A-4
Q4301	A-3	Q4514	B-5
Q4302	A-2	Q4515	B-4
Q4303	A-2	Q4516	B-4
Q4304	A-3	Q4520	B-4
Q4305	B-2	Q4575	C-5
Q4306	C-2	Q4576	C-5
Q4307	B-2	Q4577	C-5
Q4313	B-2	Q4578	C-5
Q4315	B-2	DIODE	
Q4324	B-1		
Q4325	D-5	D4305	C-1
Q4327	B-3	D4501	A-4
Q4362	D-5		
Q4363	D-5		
Q4364	D-5		
Q4366	D-3		
Q4369	E-2		
Q4371	E-2		

- ▒ : Pattern from the side which enables seeing.
- ▒ : Pattern from the rear side.

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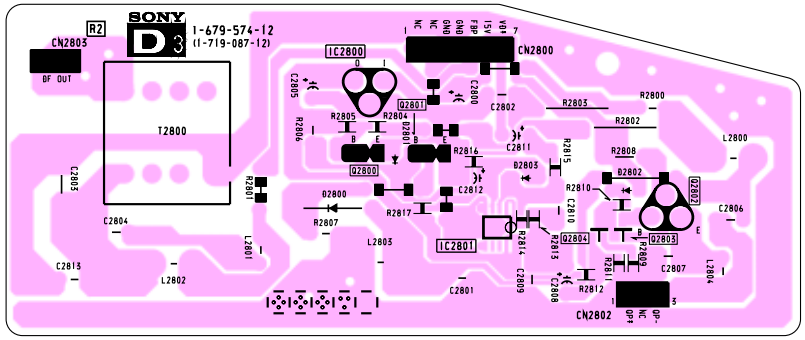
PRINTED WIRING BOARD

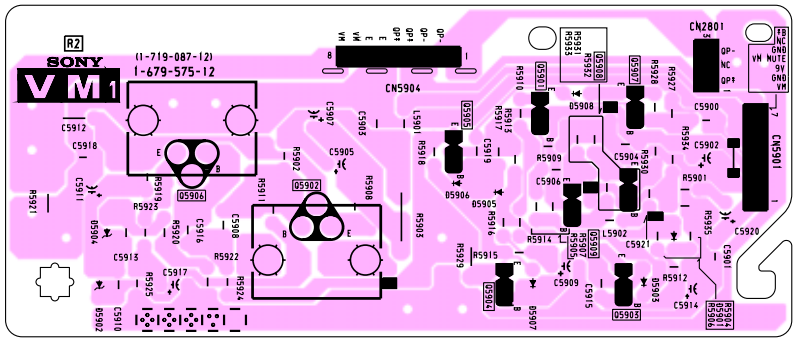
D3 [DYNAMIS FOCUS, DQP] H [FRONT AV IN, SENSOR, POWER SWITCH]

VM1 [VELOCITY MODULATION]

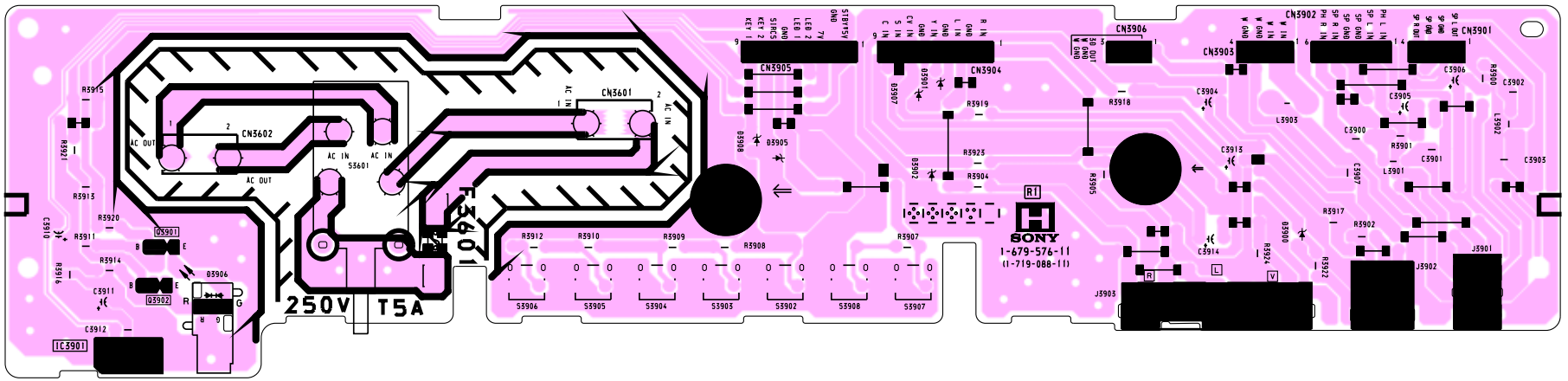
– D3 Board –



– VM1 Board –



– H Board –



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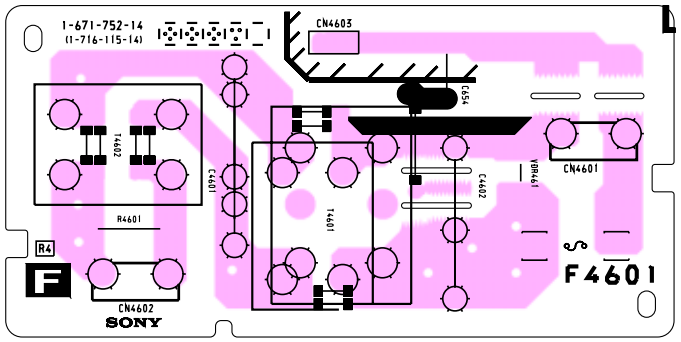
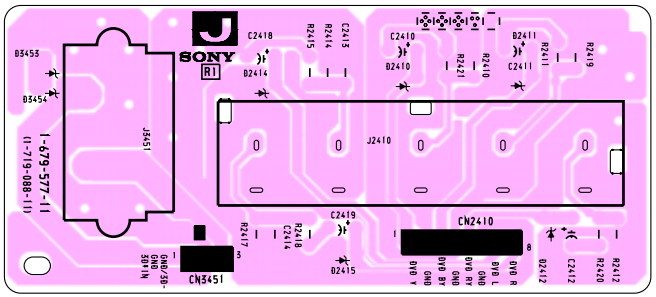
PRINTED WIRING BOARDS

F [CISPR] **J** [DVD, 3D TERMINAL]

– F Board –

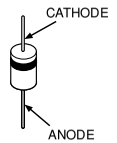
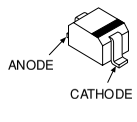
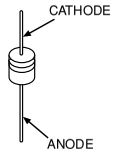
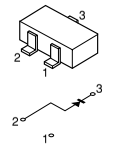
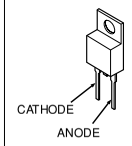


– J Board –



6-7. SEMICONDUCTORS

DIODE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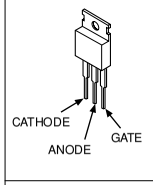
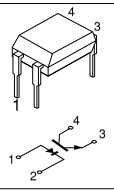
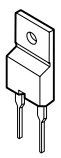
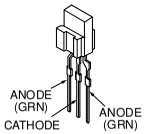
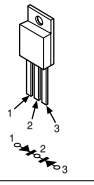
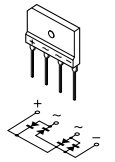
LED TRANSISTOR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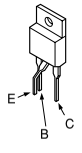	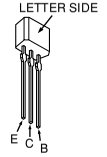	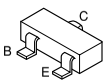		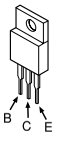	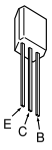
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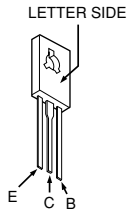	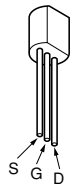	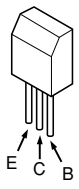	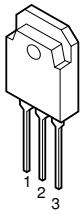	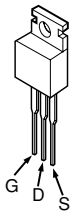	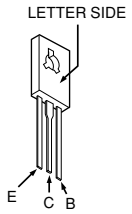
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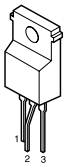
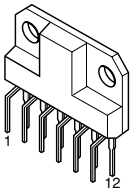
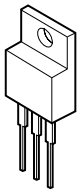
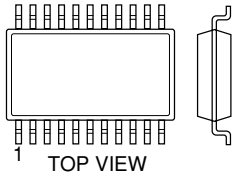
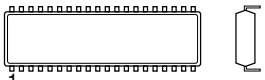
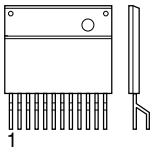
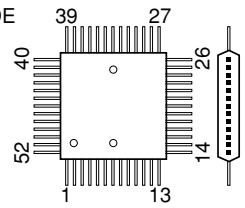
IC

			SOP  Small Outline L-Leaded Pin 8～98	
SE-135N	TA8200AH	TA7805S	BA7606F-E2 BH3868AFS-E2 CXA1315M HEF4053BT LM358D	MM1319AFBE NJU4066BM NJM2188M-TE2 NJM2903M SDA9288XE-B0121 UPC4558G2

DIP  Dual In-line Package Pin 6～98		MARKING SIDE VIEW  Zig-zag In -line Package Pin 6～99	MARKING SIDE VIEW 
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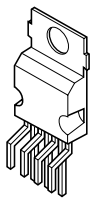	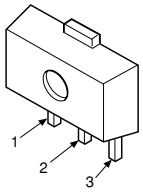	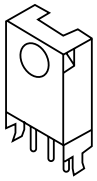	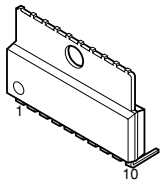	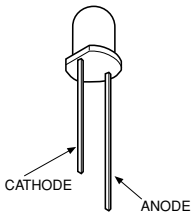	
TDA8172	S-80743AL-A7-S	SBX3081-(01)30	LA6510	NJM78M09FA	

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SECTION 7
EXPLODED VIEWS

NOTE:

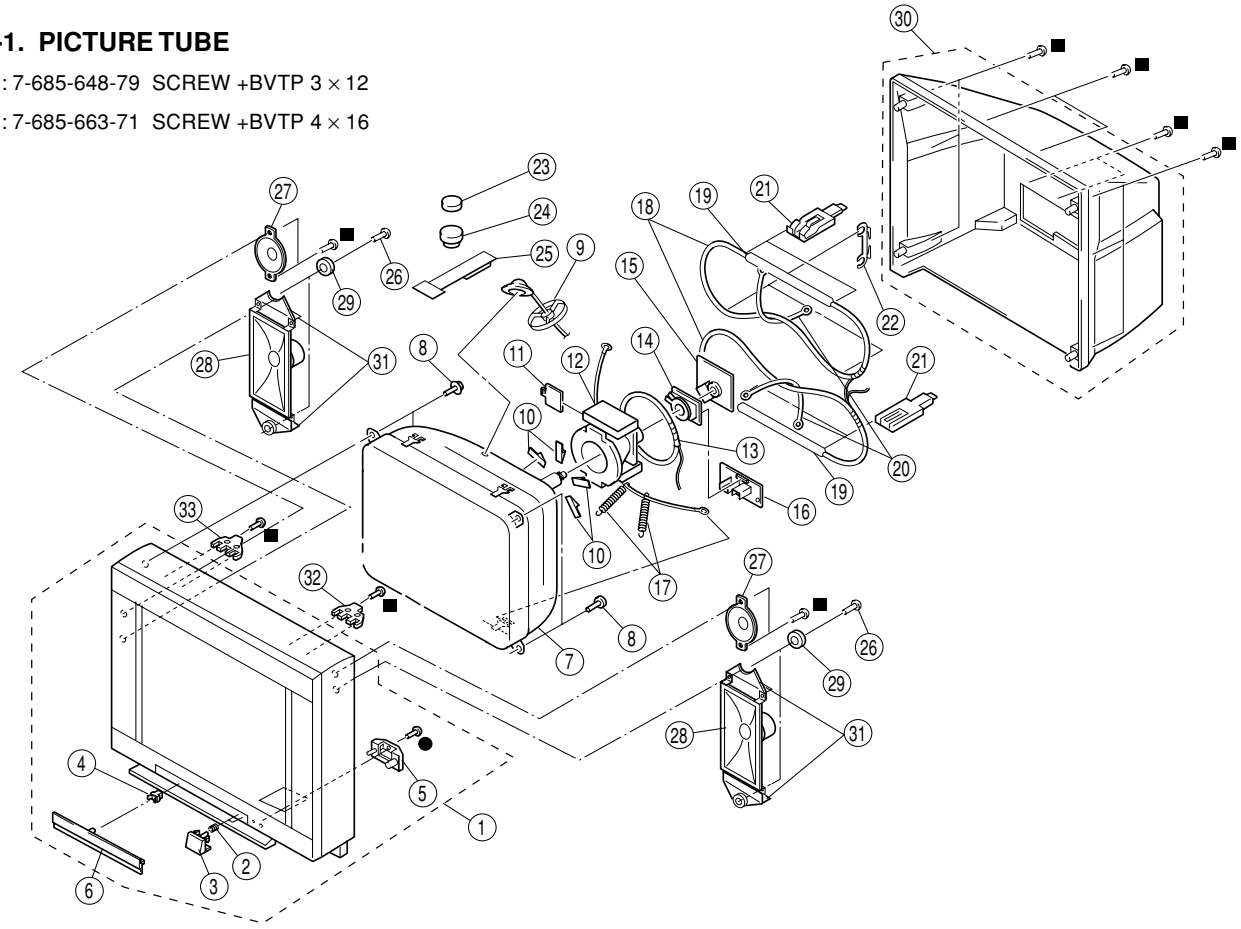
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

7-1. PICTURE TUBE

● : 7-685-648-79 SCREW +BVTP 3 × 12

■ : 7-685-663-71 SCREW +BVTP 4 × 16



REF. NO.		PART NO.	DESCRIPTION	REMARK
1		X-4038-454-1	BEZNET ASSY (KV-XA29M84)	2 ~ 6
		X-4038-467-1	BEZNET ASSY (KV-XA29M60)	
2		4-036-405-11	SPRING, COMPRESSION	
3		4-075-747-11	BUTTON, POWER	
4		4-047-464-01	CATCHER, PUSH	
5	*	4-075-749-01	GUIDE, LIGHT	
6		4-078-944-31	CONTROL, DOOR (KV-XA29M84)	
		4-078-944-51	CONTROL, DOOR (KV-XA29M60)	
7	⚠	8-735-056-05	PICTURE TUBE (M68LNH070X) (KV-XA29M60)	
	⚠	8-735-057-05	PICTURE TUBE (M68LNH070X) (KV-XA29M84)	
8		4-046-765-12	SCREW, TAPPING 7 + CROWN WASHER	
9	*	3-704-372-11	HOLER, HV CABLE	
10		3-703-961-01	SPACER, DY (KV-XA29M84)	
		4-064-818-01	SPACER, DY (KV-XA29M60)	
11		4-077-228-01	PIECE, TLH CONVERGENCE	
12	⚠	8-451-494-31	DEFLECTION YOKE (Y29RSA-S)	
13		1-452-896-11	COIL, NA ROTATION (RT200)	
14		8-453-011-11	NA299-M	
15	*	A-1332-110-A	C6 BOARD MOUNTED (KV-XA29M84)	
	*	A-1332-138-A	C6 BOARD MOUNTED (KV-XA29M60)	
16	*	A-1342-580-A	VM1 BOARD MOUNTED (KV-XA29M840)	
	*	A-1342-587-A	VM1 BOARD MOUNTED (KV-XA29M60)	
17		4-369-318-61	SPRING, EXTENSION (KV-XA29M84)	
		4-078-765-11	SPRING, EXTENSION (KV-XA29M60)	
18	⚠	1-419-294-11	COIL, DEGAUSSING (KV-XA29M84)	
	⚠	1-419-323-31	COIL, DEGAUSSING (KV-XA29M60)	
19		4-063-935-21	CUSHION (50 x 550), DGC	
20		4-068-028-32	BAND, DGC	
21	*	4-062-970-12	CLIP (29RSN), DGC	
22		4-064-883-03	HOLDER, DGC	
23		1-452-032-00	MAGNET, DISC	
24		1-452-094-00	CIRCULAR DISC MAGNET B	
25		X-4387-214-3	PERMALOY ASSY, CORRECTION (KV-XA29M84)	
		4-051-734-42	PIECE B (120), CONV, CORRECT (KV-XA29M60)	
26		4-302-404-03	SCREW (WASHER HEAD) (+P 4 x 16)	
27		1-529-190-11	SPEAKER (5 CM)	
28		1-529-563-11	SPEAKER (15 x 6.5 CM)	
29		4-374-745-21	CUSHION A	
30		X-4038-161-1	REAR COVER ASSY (■ 12)	
31	*	4-046-981-01	BRACKET, SPEAKER	
32	*	X-4038-461-2	CRT (TOP, RIGHT) SUPPORT ASSY (■ 2)	
33	*	X-4038-460-2	CRT (TOP, LEFT) SUPPORT ASSY (■ 2)	

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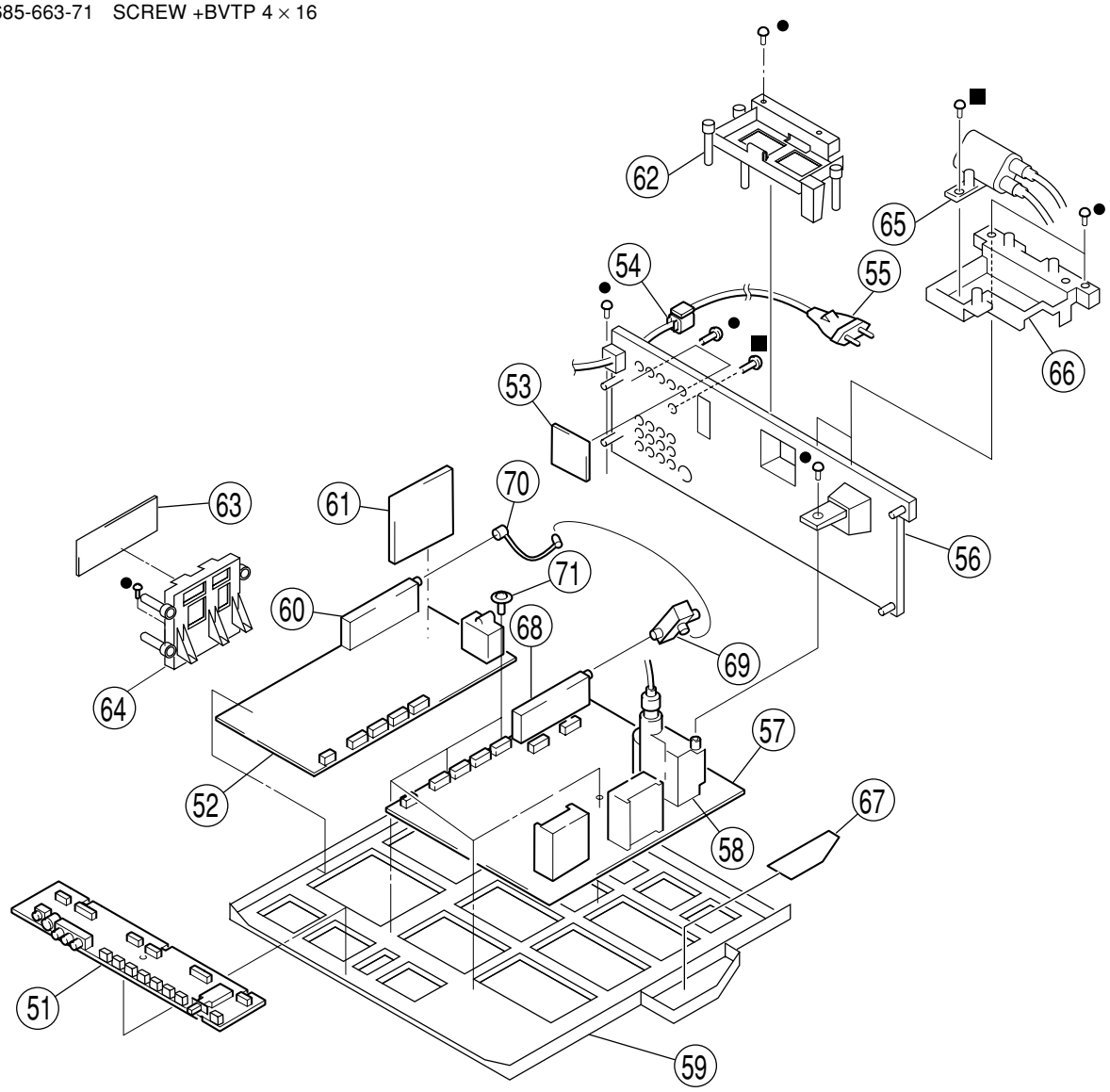
7-2. CHASSIS

● : 7-685-648-79 SCREW +BVTP 3 × 12
■ : 7-685-663-71 SCREW +BVTP 4 × 16



REF. NO.		PART NO.	DESCRIPTION	REMARK
51	*	A-1372-887-A	H BOARD MOUNTED (KV-XA29M84)	
	*	A-1372-912-A	H BOARD MOUNTED (KV-XA29M60)	
52	*	A-1136-140-A	B BOARD MOUNTED (KV-XA29M84)	
	*	A-1136-153-A	B BOARD MOUNTED (KV-XA29M60)	
53	*	A-1388-288-A	J BOARD MOUNTED (KV-XA29M84)	
	*	A-1388-296-A	J BOARD MOUNTED (KV-XA29M60)	
54	⚠	4-022-115-00	HOLDER, AC CORD	
55	⚠	1-574-062-11	CORD, POWER (WITH CONNECTOR) 2.5A/250V (KV-XA29M84 ONLY)	
	⚠	1-575-023-11	CORD, POWER (WITH CONNECTOR) 6A/250V (KV-XA29M60 ONLY)	
56	*	4-075-447-11	BRACKET, TERMINAL (■ 1)	
57	*	A-1299-384-A	A BOARD COMPLETE (KV-XA29M84)	
	*	A-1299-387-A	A BOARD COMPLETE (KV-XA29M60)	
58	⚠	1-453-305-11	TRANSFORMER ASSY, FLYBACK (NX-4009//C6P4) (KV-XA29M84)	
	⚠	1-453-284-11	TRANSFORMER ASSY, FLYBACK (NX-4009//3I4) (KV-XA29M60)	

REF. NO.		PART NO.	DESCRIPTION	REMARK
59	*	4-066-681-04	BRACKET, MAIN (6 SCREWS ((3 x 12), (+) BVTAP)	
60		8-598-508-10	TUNER, FSS BTF-LG436	
61	*	A-1190-376-A	P2 BOARD MOUNTED (KV-XA29M840)	
	*	A-1131-665-A	B1 BOARD MOUNTED (KV-XA29M60)	
62	*	4-066-683-11	HOLDER, PWB	
63	*	A-1241-443-A	F BOARD MOUNTED (KV-XA29M84)	
	*	A-1241-447-A	F BOARD MOUNTED (KV-XA29M60)	
64	*	4-066-682-01	BRACKET, F PWB	
65	⚠	1-467-525-31	CAP BLOCK, HIGH-VOLTAGE (KV-XA29M84 ONLY)	
66		4-066-680-02	BRACKET, HVC (KV-XA29M84 ONLY)	
67	*	A-1343-946-A	D3 BOARD MOUNTED (KV-XA29M84)¡	
	*	A-1333-008-A	D3 BOARD MOUNTED (KV-XA29M60)	
68		8-598-450-10	TUNER, FSS BTF-LG434 (KV-XA29M84)	
		8-598-451-00	TUNER, FSS BTF-WG441 (KV-XA29M60)	
69		1-251-658-21	SPLITTER RF (KV-XA29M84 ONLY)	
70	*	1-555-110-00	P-P CABLE (KV-XA29M84 ONLY)	
71		4-046-797-01	SCREW (3 x 12), (+) BVTAP	

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SECTION 10
ELECTRICAL PARTS LIST

A

NOTE:

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- All resistors are in ohms
- F : nonflammable

CAPACITORS
- MF : µF, PF : µµF

COILS
- MMH : mH, UH : µH

REF. NO.	PART NO.	DESCRIPTION		REMARK
	* A-1299-387-A	A BOARD COMPLETE (KV-XA29M60)		
	A-1299-384-A	A BOARD COMPLETE (KV-XA29M84)		
		**********		
	* 4-040-983-21	TERMINAL BOARD (D)(KV-XA29M60 ONLY)		
	4-382-854-11	SCREW (M3X10), P, SW (+)		
	4-382-854-21	SCREW (M3X14), P, SW (+)		
		<CAPACITOR>		
C004	1-163-001-11	CERAMIC CHIP	220PF	10.00% 50V
C005	1-163-001-11	CERAMIC CHIP	220PF	10.00% 50V
C006	1-164-004-11	CERAMIC CHIP	0.1UF	10.00% 25V
C007	1-104-664-11	ELECT	47UF	20.00% 16V
C013	1-163-021-91	CERAMIC CHIP	0.01UF	10.00% 50V
C014	1-104-664-11	ELECT	47UF	20.00% 25V
C015	1-163-009-11	CERAMIC CHIP	0.001UF	10.00% 50V
C016	1-163-243-11	CERAMIC CHIP	47PF	5.00% 50V
C017	1-163-113-00	CERAMIC CHIP	68PF	5.00% 50V
C019	1-104-664-11	ELECT	47UF	20.00% 25V
C020	1-163-259-91	CERAMIC CHIP	220PF	5.00% 50V
C022	1-163-227-11	CERAMIC CHIP	10PF	0.50PF 50V
C023	1-163-227-11	CERAMIC CHIP	10PF	0.50PF 50V
C024	1-163-227-11	CERAMIC CHIP	10PF	0.50PF 50V
C026	1-164-004-11	CERAMIC CHIP	0.1UF	10.00% 25V
C027	1-164-004-11	CERAMIC CHIP	0.1UF	10.00% 25V
C028	1-163-037-11	CERAMIC CHIP	0.022UF	10.00% 50V
C030	1-126-965-11	ELECT	22UF	20.00% 50V
C031	1-164-004-11	CERAMIC CHIP	0.1UF	10.00% 25V
C032	1-107-823-11	CERAMIC CHIP	0.47UF	10.00% 16V
C041	1-163-251-11	CERAMIC CHIP	100PF	5.00% 50V
C042	1-163-251-11	CERAMIC CHIP	100PF	5.00% 50V
C043	1-163-251-11	CERAMIC CHIP	100PF	5.00% 50V
C044	1-163-251-11	CERAMIC CHIP	100PF	5.00% 50V
C047	1-163-251-11	CERAMIC CHIP	100PF	5.00% 50V
C048	1-163-251-11	CERAMIC CHIP	100PF	5.00% 50V
C050	1-163-251-11	CERAMIC CHIP	100PF	5.00% 50V
C051	1-163-251-11	CERAMIC CHIP	100PF	5.00% 50V
C053	1-163-251-11	CERAMIC CHIP	100PF	5.00% 50V
C056	1-163-263-11	CERAMIC CHIP	330PF	5.00% 50V
C103	1-164-004-11	CERAMIC CHIP	0.1UF	10.00% 25V
C104	1-104-665-11	ELECT	100UF	20.00% 10V
C107	1-163-005-11	CERAMIC CHIP	470PF	10.00% 50V
C108	1-104-664-11	ELECT	47UF	20.00% 16V
C109	1-163-005-11	CERAMIC CHIP	470PF	10.00% 50V
C110	1-163-005-11	CERAMIC CHIP	470PF	10.00% 50V
C111	1-163-005-11	CERAMIC CHIP	470PF	10.00% 50V

REF. NO.	PART NO.	DESCRIPTION		REMARK
C112	1-104-664-11	ELECT	47UF	20.00% 16V
C113	1-104-664-11	ELECT	47UF	20.00% 25V
C114	1-126-967-11	ELECT	47UF	20.00% 50V
C115	1-126-967-11	ELECT (KV-XA29M84 ONLY)	47UF	20.00% 50V
C116	1-164-004-11	CERAMIC CHIP (KV-XA29M84 ONLY)	0.1UF	10.00% 25V
C117	1-164-004-11	CERAMIC CHIP (KV-XA29M84 ONLY)	0.1UF	10.00% 25V
C118	1-110-501-11	CERAMIC CHIP	0.33UF	10.00% 16V
C300	1-164-505-11	CERAMIC CHIP	2.2UF	16V
C301	1-126-935-11	ELECT	470UF	20.00% 16V
C302	1-163-005-11	CERAMIC CHIP	470PF	10.00% 50V
C303	1-126-959-11	ELECT	0.47UF	20.00% 50V
C304	1-126-967-11	ELECT	47UF	20.00% 50V
C305	1-164-004-11	CERAMIC CHIP	0.1UF	10.00% 25V
C306	1-163-233-11	CERAMIC CHIP	18PF	5.00% 50V
C307	1-163-233-11	CERAMIC CHIP	18PF	5.00% 50V
C308	1-163-259-91	CERAMIC CHIP	220PF	5.00% 50V
C309	1-137-378-11	MYLAR	0.22UF	5.00% 50V
C311	1-126-964-11	ELECT (KV-XA29M60 ONLY)	10UF	20.00% 50V
C312	1-164-346-11	CERAMIC CHIP	1UF	16V
C313	1-164-346-11	CERAMIC CHIP	1UF	16V
C314	1-164-346-11	CERAMIC CHIP	1UF	16V
C315	1-164-004-11	CERAMIC CHIP	0.1UF	10.00% 25V
C316	1-126-934-11	ELECT	220UF	20.00% 16V
C317	1-164-004-11	CERAMIC CHIP	0.1UF	10.00% 25V
C318	1-163-031-11	CERAMIC CHIP	0.01UF	50V
C319	1-163-031-11	CERAMIC CHIP	0.01UF	50V
C320	1-163-031-11	CERAMIC CHIP	0.01UF	50V
C321	1-164-489-11	CERAMIC CHIP	0.22UF	10.00% 16V
C322	1-163-005-11	CERAMIC CHIP	470PF	10.00% 50V
C324	1-163-017-00	CERAMIC CHIP	0.0047UF	10.00% 50V
C325	1-126-960-11	ELECT	1UF	20.00% 50V
C327	1-126-965-11	ELECT	22UF	20.00% 50V
C328	1-164-004-11	CERAMIC CHIP	0.1UF	10.00% 25V
C329	1-126-963-11	ELECT	4.7UF	20.00% 50V
C330	1-164-004-11	CERAMIC CHIP	0.1UF	10.00% 25V
C331	1-126-963-11	ELECT	4.7UF	20.00% 50V
C332	1-126-963-11	ELECT	4.7UF	20.00% 50V
C335	1-164-004-11	CERAMIC CHIP	0.1UF	10.00% 25V
C336	1-164-004-11	CERAMIC CHIP	0.1UF	10.00% 25V
C337	1-126-961-11	ELECT	2.2UF	20.00% 50V
C341	1-115-340-11	CERAMIC CHIP	0.22UF	10.00% 25V
C342	1-163-259-91	CERAMIC CHIP	220PF	5.00% 50V
C347	1-126-933-11	ELECT	100UF	20.00% 16V

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The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

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REF. NO.	PART NO.	DESCRIPTION			REMARK
C348	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C349	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C350	1-163-031-11	CERAMIC CHIP	0.01UF		50V
C351	1-126-964-11	ELECT	10UF	20.00%	50V
C352	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C353	1-126-960-11	ELECT	1UF	20.00%	50V
C356	1-104-664-11	ELECT	47UF	20.00%	16V
C357	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C502	1-163-145-00	CERAMIC CHIP	0.0015UF	5.00%	50V
C503	1-126-964-11	ELECT	10UF	20.00%	50V
C506	1-107-638-11	ELECT	33UF	20.00%	160V
C507	1-161-830-00	CERAMIC	0.0047UF		500V
C510	1-102-112-00	CERAMIC	330PF	10.00%	50V
C512	1-163-989-11	CERAMIC CHIP	0.033UF	10.00%	25V
C513	1-163-263-11	CERAMIC CHIP	330PF	5.00%	50V
C514	1-106-383-00	MYLAR	0.047UF	10.00%	200V
C517	1-164-182-11	CERAMIC CHIP	0.0033UF	10.00%	50V
C518	1-104-665-11	ELECT	100UF	20.00%	10V
C519	1-102-212-00	CERAMIC	820PF	10.00%	500V
C521	1-126-934-11	ELECT	220UF	20.00%	16V
C522	1-126-933-11	ELECT	100UF	20.00%	16V
C523	1-102-002-00	CERAMIC	680PF	10.00%	500V
C524	1-126-967-11	ELECT	47UF	20.00%	50V
C526	1-130-495-00	MYLAR	0.1UF	5.00%	50V
C527	1-102-820-00	CERAMIC	330PF	5.00%	50V
C528	1-162-116-00	CERAMIC	680PF	10.00%	2KV
C530	1-137-372-11	MYLAR	0.022UF	5.00%	50V
C531	1-107-903-11	ELECT	2.2UF	20.00%	50V
C532	1-126-941-11	ELECT	470UF	20.00%	25V
C533	1-126-941-11	ELECT	470UF	20.00%	25V
C534	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C536	1-130-495-00	MYLAR	0.1UF	5.00%	50V
C537	1-126-969-11	ELECT	220UF	20.00%	50V
C538	1-127-717-11	FILM	19000PF	3%	1.2KV
C539	1-129-723-00	FILM	0.056UF	5.00%	630V
C540	1-136-171-00	FILM	0.33UF	5.00%	50V
C546	1-165-319-11	CERAMIC CHIP	0.1UF		50V
C549	1-163-017-00	CERAMIC CHIP	0.0047UF	10.00%	50V
C550	1-106-220-00	MYLAR	0.1UF	10.00%	100V
C551	1-126-960-11	ELECT	1UF	20.00%	50V
C552	1-162-116-00	CERAMIC	680PF	10.00%	2KV
C553	1-162-116-00	CERAMIC	680PF	10.00%	2KV
C554	1-137-417-11	MYLAR	0.0047UF	10.00%	200V
C556	1-126-941-11	ELECT	470UF	20.00%	25V
C557	1-126-941-11	ELECT	470UF	20.00%	25V
C558	1-123-024-21	ELECT	33UF		160V
C560	1-102-228-00	CERAMIC	470PF	10.00%	500V
C561	1-129-898-00	FILM	0.0022UF	5.00%	630V
C562	1-102-228-00	CERAMIC	470PF	10.00%	500V
C564	1-163-038-11	CERAMIC CHIP	0.1UF		25V
C565	1-107-655-11	ELECT	47UF	20.00%	250V
C566	1-102-244-00	CERAMIC	220PF	10.00%	500V
C567	1-115-520-11	FILM	0.68UF	5.00%	250V
C568	1-102-228-00	CERAMIC	470PF	10.00%	500V
C570	1-115-522-11	FILM	1UF	5.00%	250V
C572	1-117-661-11	FILM	0.15UF	5.00%	250V
C573	1-106-387-00	MYLAR	0.068UF	10.00%	200V

REF. NO.	PART NO.	DESCRIPTION			REMARK
C574	1-104-709-11	ELECT	4.7UF		160V
C576	1-130-495-00	MYLAR	0.1UF	5.00%	50V
C577	1-106-395-00	MYLAR	0.15UF	10.00%	200V
C582	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C584	1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
C586	1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
C600 ⚠	1-104-705-11	MYLAR	0.1UF	20.00%	250V
C601	1-129-720-00	FILM	0.033UF	5.00%	630V
C602 ⚠	1-104-705-11	MYLAR	0.1UF	20.00%	250V
C603	1-104-664-11	ELECT	47UF	20.00%	25V
C604	1-163-009-11	CERAMIC CHIP	0.001UF	10.00%	50V
C605 ⚠	1-119-892-51	CERAMIC	470PF	10.00%	250V
C606 ⚠	1-119-892-51	CERAMIC	470PF	10.00%	250V
C607	1-161-830-00	CERAMIC	0.0047UF	99%	500V
C608	1-161-830-00	CERAMIC	0.0047UF	99%	500V
C609	1-126-968-11	ELECT	100UF	20.00%	50V
C610	1-126-964-11	ELECT	10UF	20.00%	50V
C611	1-161-830-00	CERAMIC	0.0047UF	99%	500V
C612	1-161-830-00	CERAMIC	0.0047UF	99%	500V
C613	1-125-906-11	ELECT	560UF	20.00%	450V
C614	1-126-964-11	ELECT	10UF	20.00%	50V
C615 ⚠	1-119-892-51	CERAMIC	470PF	10.00%	250V
C616	1-130-202-00	FILM	0.022UF	5.00%	400V
C617	1-107-792-11	CERAMIC	100PF	5.00%	1KV
C618	1-125-893-11	FILM	680PF	3.00%	1.5KV
C619 ⚠	1-119-892-51	CERAMIC	470PF	10.00%	250V
C620	1-163-133-00	CERAMIC CHIP	470PF	5.00%	50V
C621	1-102-114-00	CERAMIC	470PF	10.00%	50V
C622	1-102-119-00	CERAMIC	0.0015UF	10.00%	50V
C623	1-104-665-11	ELECT	100UF	20.00%	25V
C624	1-104-331-11	CERAMIC	0.0022UF	10.00%	1KV
C626	1-102-002-00	CERAMIC	680PF	10.00%	500V
C629	1-126-964-11	ELECT	10UF	20.00%	50V
C630	1-124-347-51	ELECT (KV-XA29M60 ONLY)	100UF	20.00%	160V
C630	1-125-494-11	ELECT (BLOCK) (KV-XA29M84 ONLY)	560UF	20.00%	160V
C631	1-128-550-11	ELECT	2200UF	20.00%	50V
C632	1-128-339-11	ELECT (KV-XA29M60 ONLY)	2200UF	20.00%	16V
C633	1-104-999-11	MYLAR	0.1UF	10.00%	200V
C634	1-126-933-11	ELECT	100UF	20.00%	16V
C634	1-126-936-11	ELECT (KV-XA29M84 ONLY)	3300UF	20.00%	16V
C635	1-104-665-11	ELECT	100UF	20.00%	10V
C636	1-104-760-11	CERAMIC CHIP	0.047UF	10.00%	50V
C638	1-161-830-00	CERAMIC	0.0047UF		500V
C641	1-102-002-00	CERAMIC	680PF	10.00%	500V
C642	1-126-943-11	ELECT	2200UF	20.00%	25V
C643	1-104-665-11	ELECT	100UF	20.00%	10V
C644	1-104-331-11	CERAMIC	0.0022UF	10.00%	1KV
C645	1-137-605-11	MYLAR	0.01UF	10.00%	250V
C646	1-107-679-91	ELECT	10UF	20.00%	450V
C647	1-163-275-11	CERAMIC CHIP	0.001UF	5.00%	50V
C649	1-126-940-11	ELECT	330UF	20.00%	25V
C650	1-163-275-11	CERAMIC CHIP	0.001UF	5.00%	50V
C651	1-163-133-00	CERAMIC CHIP	470PF	5.00%	50V

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REF. NO.		PART NO.	DESCRIPTION			REMARK
C652		1-126-965-11	ELECT	22UF	20.00% 50V	
C653		1-104-664-11	ELECT	47UF	20.00% 25V	
C655	⚠	1-119-892-51	CERAMIC	470PF	10.00% 250V	
C657		1-101-821-00	CERAMIC	0.0022UF	500V	
C659		1-162-116-00	CERAMIC	680PF	10.00% 2KV	
C912		1-164-004-11	CERAMIC CHIP	0.1UF	10.00% 25V	
C913		1-104-665-11	ELECT	100UF	20.00% 10V	
			<CONNECTOR>			
CN101	*	1-779-890-11	CONNECTOR, BOARD TO BOARD 10P			
CN102	*	1-779-889-11	CONNECTOR, BOARD TO BOARD 8P			
CN104		1-695-915-11	TAB (CONTACT)			
CN105		1-695-915-11	TAB (CONTACT)			
CN106	*	1-564-506-11	PLUG, CONNECTOR 3P			
CN201	*	1-564-508-11	PLUG, CONNECTOR 5P			
CN202	*	1-508-847-00	PIN, CONNECTOR 4P			
CN302	*	1-779-889-11	CONNECTOR, BOARD TO BOARD 8P (KV-XA29M84 ONLY)			
CN303	*	1-779-890-11	CONNECTOR, BOARD TO BOARD 10P			
CN305	*	1-564-509-11	PLUG, CONNECTOR 6P			
CN501	*	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P			
CN502	*	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P			
CN503	*	1-564-510-11	PLUG, CONNECTOR 7P			
CN504		1-695-915-11	TAB (CONTACT)			
CN505	*	1-564-508-11	PLUG, CONNECTOR 5P			
CN507	*	1-564-509-11	PLUG, CONNECTOR 6P			
CN508		1-695-915-11	TAB (CONTACT)(KV-XA29M84 ONLY)			
CN601	*	1-580-843-11	PIN, CONNECTOR (POWER)			
CN602	*	1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P (KV-XA29M84 ONLY)			
CN603	*	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P			
CN604	*	1-691-134-11	PIN, CONNECTOR (PC BOARD) 2P (KV-XA29M60 ONLY)			
CN604	*	1-573-963-11	PIN, CONNECTOR (PC BOARD) 3P (KV-XA29M84 ONLY)			
CN608	*	1-564-507-11	PLUG, CONNECTOR 4P			
CN904	*	1-564-512-11	PLUG, CONNECTOR 9P			
			<DIODE>			
D001		8-719-988-61	1SS355TE-17			
D002		8-719-988-61	1SS355TE-17			
D004		1-216-295-11	SHORT	0		
D005		8-719-988-61	1SS355TE-17			
D006		1-216-295-11	SHORT	0		
D007		8-719-988-61	1SS355TE-17			
D008		8-719-988-61	1SS355TE-17			
D009		8-719-988-61	1SS355TE-17			
D100		8-719-988-61	1SS355TE-17(KV-XA29M60 ONLY)			
D300		1-216-295-11	SHORT	0		
D301		8-719-988-61	1SS355TE-17			
D306		8-719-988-61	1SS355TE-17			
D307		8-719-988-61	1SS355TE-17			
D308		8-719-988-61	1SS355TE-17			
D309		8-719-159-10	RD5.1SB-T2			
D311		8-719-988-61	1SS355TE-17			
D312		8-719-988-61	1SS355TE-17			

REF. NO.	PART NO.	DESCRIPTION			REMARK
D313	8-719-988-61	1SS355TE-17			
D315	8-719-988-61	1SS355TE-17(KV-XA29M60 ONLY)			
D316	8-719-037-06	RD7.5SB1-T1(KV-XA29M60 ONLY)			
D316	8-719-037-20	RD11SB2-T1(KV-XA29M84 ONLY)			
D320	8-719-158-35	RD9.1S-B			
D321	8-719-158-35	RD9.1S-B			
D504	8-719-302-43	EL1Z			
D505	8-719-988-61	1SS355TE-17			
D506	8-719-911-19	1SS119-25			
D507	8-719-988-61	1SS355TE-17			
D508	8-719-988-61	1SS355TE-17			
D509	1-216-073-00	RES-CHIP	10K	5% 1/10W	
D510	8-719-988-61	1SS355TE-17			
D511	8-719-988-61	1SS355TE-17			
D512	8-719-988-61	1SS355TE-17			
D513	8-719-908-03	GP08D			
D517	8-719-312-71	RS3FS			
D518	8-719-074-35	RU4AM-T4			
D519	8-719-312-71	RS3FS			
D521	8-719-302-43	EL1Z			
D522	8-719-028-45	D2L20U			
D523	8-719-302-43	EL1Z			
D527	8-719-908-03	GP08D			
D528	8-719-908-03	GP08D			
D532	8-719-988-61	1SS355TE-17			
D534	8-719-988-61	1SS355TE-17			
D600	8-719-911-19	1SS119-25			
D602	8-719-911-19	1SS119-25			
D603	8-719-150-92	RD33EB3T			
D604	8-719-028-72	RGP02-17EL-6433			
D605	8-719-510-22	D3SB60			
D606	8-719-108-18	5P-6M			
D607	8-719-073-01	MA111-(K8).S0			
D608	8-719-110-53	RD20ES-B2			
D609	8-719-311-31	RU-1P			
D610	8-719-043-76	AK04V0			
D611	8-719-046-74	AU-01Z-V1			
D612	8-719-071-38	D5S6M			
D613	8-719-046-74	AU-01Z-V1			
D614	8-719-046-74	AU-01Z-V1			
D617	8-719-067-18	RN4Z			
D620	8-719-110-72	RD30ESB2			
D622	8-719-077-49	D3L60			
D623	8-719-978-65	DTZ-TT11-15B			
D624	8-719-073-01	MA111-(K8).S0			
D625	8-719-977-28	DTZ10B			
D628	8-719-911-19	1SS119-25			
D630	8-719-052-74	FMX-12S			
D631	8-719-068-00	ERC04-06SE			
D632	8-719-068-00	ERC04-06SE			
D633	8-719-948-45	ERA22-08			
D634	8-719-073-01	MA111-(K8).S0			
D635	8-719-073-01	MA111-(K8).S0			
D636	8-719-510-02	D1NS4			
D637	8-719-109-96	RD6.8ES-B1			
D638	8-719-024-99	11ES2-NTA2B(KV-XA29M60 ONLY)			
D638	8-719-510-48	D1N20R(KV-XA29M84 ONLY)			

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REF. NO.	PART NO.	DESCRIPTION	REMARK
		<CONNECTOR>	
DY1	* 1-580-798-11	CONNECTOR PIN (DY) 6P	
		<FERRITE BEAD>	
FB101	1-216-295-11	SHORT	0(KV-XA29M84 ONLY)
FB102	1-216-295-11	SHORT	0(KV-XA29M84 ONLY)
FB300	1-412-911-31	FERRITE	0UH
FB501	1-410-397-21	FERRITE	1.1UH
FB502	1-410-397-21	FERRITE	1.1UH
FB600	1-410-397-21	FERRITE	1.1UH
FB601	1-410-397-21	FERRITE	1.1UH
FB602	1-410-397-21	FERRITE	1.1UH
FB603	1-410-397-21	FERRITE	1.1UH
FB604	1-412-911-31	FERRITE	0UH
FB605	1-412-911-31	FERRITE	0UH
FB606	1-412-911-31	FERRITE	0UH
FB608	1-412-911-31	FERRITE	0UH
FB611	1-410-397-21	FERRITE	1.1UH
FB612	1-410-397-21	FERRITE	1.1UH
FB613	1-410-397-21	FERRITE	1.1UH
FB615	1-410-397-21	FERRITE	1.1UH
		<IC>	
IC001	8-752-917-80	CXP750097-032S	
IC002	8-759-371-21	MM1319AFBE	
IC003	8-759-672-78	M24C08-BN6(A)	
IC100	8-759-042-02	S-80743AL-A7-S(KV-XA29M60 ONLY)	
IC301	8-752-095-72	CXA2159S	
IC302	8-759-666-90	TDA9181T	
IC502	8-759-700-07	NJM2903M	
IC503	8-759-980-58	TDA8172	
IC601	8-749-014-48	STR-F6656	
IC602	8-749-920-61	SE-135N	
IC603	8-759-701-59	NJM78M09FA	
IC604	8-759-231-53	TA7805S	
		<CHIP CONDUCTOR>	
JR001	1-216-295-11	SHORT	0
JR002	1-216-295-11	SHORT	0
JR003	1-216-295-11	SHORT	0
JR004	1-216-295-11	SHORT	0
JR006	1-216-295-11	SHORT	0
JR007	1-216-295-11	SHORT	0
JR008	1-216-295-11	SHORT	0
JR010	1-216-295-11	SHORT	0
JR012	1-216-295-11	SHORT	0
JR014	1-216-295-11	SHORT	0
JR015	1-216-295-11	SHORT	0
JR016	1-216-295-11	SHORT	0
JR020	1-216-295-11	SHORT	0
JR022	1-216-295-11	SHORT	0
JR023	1-216-295-11	SHORT	0
JR024	1-216-295-11	SHORT	0
JR025	1-216-295-11	SHORT	0

REF. NO.	PART NO.	DESCRIPTION	REMARK
JR028	1-216-295-11	SHORT	0
JR030	1-216-295-11	SHORT	0
JR031	1-216-295-11	SHORT	0
JR102	1-216-295-11	SHORT	0
JR107	1-216-295-11	SHORT	0 (KV-XA29M60 ONLY)
JR109	1-216-295-11	SHORT	0 (KV-XA29M84 ONLY)
JR214	1-216-295-11	SHORT	0
JR304	1-216-295-11	SHORT	0
JR308	1-216-295-11	SHORT	0
JR309	1-216-295-11	SHORT	0
JR310	1-216-295-11	SHORT	0
JR311	1-216-295-11	SHORT	0
JR500	1-216-295-11	SHORT	0
JR501	1-216-295-11	SHORT	0
JR502	1-216-295-11	SHORT	0
JR503	1-216-295-11	SHORT	0
JR600	1-216-295-11	SHORT	0
		<COIL>	
L002	1-414-856-11	INDUCTOR	10UH
L003	1-414-180-11	INDUCTOR	3.3UH
L005	1-414-233-22	INDUCTOR	0UH
L101	1-414-856-11	INDUCTOR	10UH
L102	1-414-856-11	INDUCTOR	10UH
L103	1-414-856-11	INDUCTOR	10UH
L104	1-414-856-11	INDUCTOR	10UH
L105	1-414-856-11	INDUCTOR	10UH
L301	1-414-189-31	INDUCTOR	100UH
L302	1-414-185-41	INDUCTOR	22UH
L303	1-414-189-31	INDUCTOR	100UH
L304	1-414-189-31	INDUCTOR	100UH
L501	1-412-525-31	INDUCTOR	10UH
L502	1-422-613-11	COIL, AIR CORE	
L503	1-412-525-31	INDUCTOR	10UH
L504	1-412-525-31	INDUCTOR	10UH
L507	1-459-111-00	INDUCTOR	10MH
L511	1-406-977-21	INDUCTOR	100UH
L513	1-412-551-31	INDUCTOR	1.5MH
L515	1-459-104-00	COIL, WITH CORE	
L518	1-414-187-11	INDUCTOR	47UH
L601	1-412-527-11	INDUCTOR	15UH
L905	1-414-856-11	INDUCTOR	10UH
		<PHOTO COUPLER>	
PH600 ⚠	8-749-924-35	ON3171-R	
		<TRANSISTOR>	
Q001	8-729-216-22	2SA1162-G	
Q002	8-729-230-49	2SC2712-YG	
Q101	8-729-230-49	2SC2712-YG	
Q301	8-729-026-49	2SA1037AK-T146-R	
Q301	8-729-216-22	2SA1162-G	
Q301	8-729-216-22	2SA1162-G	
Q302	8-729-230-49	2SC2712-YG	

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REF. NO.	PART NO.	DESCRIPTION			REMARK
Q303	8-729-216-22	2SA1162-G			
Q304	8-729-216-22	2SA1162-G			
Q305	8-729-216-22	2SA1162-G			
Q306	8-729-230-49	2SC2712-YG			
Q307	8-729-230-49	2SC2712-YG			
Q308	8-729-216-22	2SA1162-G			
Q309	8-729-421-19	UN2213			
Q310	8-729-230-49	2SC2712-YG			
Q311	8-729-230-49	2SC2712-YG			
Q312	8-729-216-22	2SA1162-G			
Q313	8-729-230-49	2SC2712-YG			
Q314	8-729-216-22	2SA1162-G			
Q315	8-729-421-19	UN2213			
Q316	8-729-216-22	2SA1162-G			
Q317	8-729-216-22	2SA1162-G			
Q501	8-729-216-22	2SA1162-G			
Q502	8-729-216-22	2SA1162-G			
Q503	8-729-230-49	2SC2712-YG			
Q505	8-729-931-45	IRF614			
Q506	8-729-119-80	2SC2688-LK			
Q507	8-729-216-22	2SA1162-G			
Q509	8-729-230-49	2SC2712-YG			
Q511	8-729-048-07	2SD2578-CA			
Q600	8-729-119-78	2SC2785-HFE			
Q601	8-729-023-22	2SD2114K			
Q602	8-729-230-49	2SC2712-YG			
Q603	8-729-424-08	UN2111			
Q604	8-729-200-17	2SA1091-O			
Q605	8-729-044-30	2SK2845-LB102			
Q606	8-729-230-49	2SC2712-YG			
Q607	8-729-922-37	2SD2144S-UVW			
Q608	8-729-230-49	2SC2712-YG			
		<RESISTOR>			
R001	1-414-233-22	INDUCTOR	0UH		
R002	1-216-025-11	RES-CHIP	100	5%	1/10W
R003	1-216-073-00	RES-CHIP	10K	5%	1/10W
R004	1-216-025-11	RES-CHIP	100	5%	1/10W
R005	1-216-025-11	RES-CHIP	100	5%	1/10W
R008	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R010	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R011	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R012	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R013	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R014	1-216-025-11	RES-CHIP	100	5%	1/10W
R015	1-216-025-11	RES-CHIP	100	5%	1/10W
R018	1-216-033-00	RES-CHIP	220	5%	1/10W
R017	1-216-049-11	RES-CHIP	1K	5%	1/10W
		(KV-XA29M84 ONLY)			
R019	1-216-073-00	RES-CHIP	10K	5%	1/10W
R020	1-216-045-00	RES-CHIP	680	5%	1/10W
R021	1-216-073-00	RES-CHIP	10K	5%	1/10W
R022	1-216-295-11	SHORT	0		
R023	1-216-049-11	RES-CHIP	1K	5%	1/10W
R024	1-216-063-91	RES-CHIP	3.9K	5%	1/10W
R025	1-216-063-91	RES-CHIP	3.9K	5%	1/10W
R026	1-216-063-91	RES-CHIP	3.9K	5%	1/10W

REF. NO.	PART NO.	DESCRIPTION			REMARK
R027	1-216-049-11	RES-CHIP	1K	5%	1/10W
R028	1-216-073-00	RES-CHIP	10K	5%	1/10W
		(KV-XA29M60 ONLY)			
R029	1-216-049-11	RES-CHIP	1K	5%	1/10W
R031	1-216-049-11	RES-CHIP	1K	5%	1/10W
R032	1-216-025-11	RES-CHIP	100	5%	1/10W
R034	1-216-049-11	RES-CHIP	1K	5%	1/10W
R035	1-216-025-11	RES-CHIP	100	5%	1/10W
R036	1-216-025-11	RES-CHIP	100	5%	1/10W
R037	1-216-025-11	RES-CHIP	100	5%	1/10W
R038	1-216-049-11	RES-CHIP	1K	5%	1/10W
R040	1-216-025-11	RES-CHIP	100	5%	1/10W
R041	1-216-025-11	RES-CHIP	100	5%	1/10W
R042	1-216-295-11	SHORT	0		
R043	1-216-049-11	RES-CHIP	1K	5%	1/10W
R044	1-216-025-11	RES-CHIP	100	5%	1/10W
R045	1-414-233-22	INDUCTOR	0UH		
R046	1-216-049-11	RES-CHIP	1K	5%	1/10W
R047	1-414-233-22	INDUCTOR	0UH		
R048	1-216-073-00	RES-CHIP	10K	5%	1/10W
R050	1-216-073-00	RES-CHIP	10K	5%	1/10W
R053	1-216-049-11	RES-CHIP	1K	5%	1/10W
R058	1-216-295-11	SHORT	0		
R059	1-216-295-11	SHORT	0		
R060	1-216-295-11	SHORT	0		
R061	1-216-295-11	SHORT	0		
R062	1-216-041-00	RES-CHIP	470	5%	1/10W
R063	1-216-041-00	RES-CHIP	470	5%	1/10W
R064	1-216-041-00	RES-CHIP	470	5%	1/10W
R065	1-216-041-00	RES-CHIP	470	5%	1/10W
R066	1-216-049-11	RES-CHIP	1K	5%	1/10W
R067	1-216-049-11	RES-CHIP	1K	5%	1/10W
R068	1-216-041-00	RES-CHIP	470	5%	1/10W
R101	1-216-025-11	RES-CHIP	100	5%	1/10W
		(KV-XA29M60 ONLY)			
R102	1-216-025-11	RES-CHIP	100	5%	1/10W
		(KV-XA29M60 ONLY)			
R105	1-216-295-11	SHORT	0		
R109	1-216-041-00	RES-CHIP	470	5%	1/10W
R111	1-216-025-11	RES-CHIP	100	5%	1/10W
R112	1-216-025-11	RES-CHIP	100	5%	1/10W
R113	1-216-025-11	RES-CHIP	100	5%	1/10W
R225	1-216-033-00	RES-CHIP	220	5%	1/10W
R226	1-216-033-00	RES-CHIP	220	5%	1/10W
R227	1-216-033-00	RES-CHIP	220	5%	1/10W
R237	1-216-295-11	SHORT	0		
R301	1-216-113-00	RES-CHIP	470K	5%	1/10W
R302	1-216-295-11	SHORT	0		
R303	1-216-049-11	RES-CHIP	1K	5%	1/10W
R304	1-216-073-00	RES-CHIP	10K	5%	1/10W
R308	1-216-025-11	RES-CHIP	100	5%	1/10W
R309	1-216-025-11	RES-CHIP	100	5%	1/10W
R310	1-216-025-11	RES-CHIP	100	5%	1/10W
R311	1-216-041-00	RES-CHIP	470	5%	1/10W
R312	1-216-039-00	RES-CHIP	390	5%	1/10W
R313	1-216-037-00	RES-CHIP	330	5%	1/10W
R314	1-216-083-00	RES-CHIP	27K	5%	1/10W
R315	1-216-053-00	RES-CHIP	1.5K	5%	1/10W

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REF. NO.	PART NO.	DESCRIPTION			REMARK
R316	1-216-037-00	RES-CHIP	330	5%	1/10W
R317	1-216-091-00	RES-CHIP	56K	5%	1/10W
R318	1-216-039-00	RES-CHIP	390	5%	1/10W
R319	1-216-025-11	RES-CHIP	100	5%	1/10W
R320	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R321	1-216-073-00	RES-CHIP	10K	5%	1/10W
R322	1-216-033-00	RES-CHIP	220	5%	1/10W
R323	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R324	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R326	1-216-029-00	RES-CHIP	150	5%	1/10W
R327	1-216-033-00	RES-CHIP	220	5%	1/10W
R328	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R329	1-216-041-00	RES-CHIP	470	5%	1/10W
R331	1-216-295-11	SHORT	0		
R332	1-216-033-00	RES-CHIP	220	5%	1/10W
R335	1-216-045-00	RES-CHIP	680	5%	1/10W
R338	1-216-037-00	RES-CHIP	330	5%	1/10W
R339	1-216-033-00	RES-CHIP	220	5%	1/10W
R340	1-216-025-11	RES-CHIP	100	5%	1/10W
R345	1-216-081-00	RES-CHIP	22K	5%	1/10W
R348	1-208-806-11	METAL CHIP	10K	0.5%	1/10W
R349	1-216-073-00	RES-CHIP	10K	5%	1/10W
R350	1-216-061-00	RES-CHIP	3.3K	5%	1/10W
R351	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R354	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R355	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R356	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R357	1-216-079-00	RES-CHIP	18K	5%	1/10W
R358	1-216-049-11	RES-CHIP	1K	5%	1/10W
R359	1-216-033-00	RES-CHIP	220	5%	1/10W
R360	1-216-033-00	RES-CHIP	220	5%	1/10W
R361	1-216-073-00	RES-CHIP	10K	5%	1/10W
R362	1-216-075-00	RES-CHIP	12K	5%	1/10W
R363	1-216-079-00	RES-CHIP	18K	5%	1/10W
R364	1-216-295-11	SHORT	0		
R365	1-216-033-00	RES-CHIP	220	5%	1/10W
R366	1-216-073-00	RES-CHIP	10K	5%	1/10W
R367	1-216-073-00	RES-CHIP	10K	5%	1/10W
R368	1-216-073-00	RES-CHIP	10K	5%	1/10W
R370	1-216-033-00	RES-CHIP	220	5%	1/10W
R371	1-216-083-00	RES-CHIP	27K	5%	1/10W
R372	1-216-091-00	RES-CHIP	56K	5%	1/10W
R376	1-216-081-00	RES-CHIP	22K	5%	1/10W
R377	1-216-121-11	RES-CHIP	1M	5%	1/10W
R378	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R379	1-218-179-11	RES-CHIP	10M	5%	1/10W
R381	1-216-295-11	SHORT	0		
R382	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R383	1-216-049-11	RES-CHIP	1K	5%	1/10W
R384	1-216-041-00	RES-CHIP	470	5%	1/10W
R385	1-216-029-00	RES-CHIP	150	5%	1/10W
R391	1-216-295-11	SHORT	0		
R500	1-249-417-11	CARBON	1K	5%	1/4W
R501	1-216-049-11	RES-CHIP	1K	5%	1/10W
R505	1-208-830-11	METAL CHIP	100K	0.5%	1/10W
R506	1-216-081-00	RES-CHIP	22K	5%	1/10W
R507	1-249-389-11	CARBON	4.7	5%	1/4W
R508	1-216-471-11	METAL OXIDE	27	5%	3W

REF. NO.	PART NO.	DESCRIPTION			REMARK
R509	1-216-473-11	METAL OXIDE	56	5%	3W
R510	1-216-449-11	METAL OXIDE	56	5%	2W
R511	1-215-908-00	METAL OXIDE	33	5%	3W
R515	1-215-911-11	METAL OXIDE	100	5%	3W
R517	1-208-798-11	METAL CHIP	4.7K	0.5%	1/10W
R518	1-247-807-31	CARBON	100	5%	1/4W
R519	1-215-913-11	METAL OXIDE	220	5%	3W
R520	1-215-445-00	METAL	10K	1%	1/4W
R522	1-208-806-11	METAL CHIP	10K	0.5%	1/10W
R523	1-249-411-11	CARBON	330	5%	1/4W
R525	1-208-846-11	METAL CHIP	470K	0.5%	1/10W
R526	1-208-804-11	METAL CHIP	8.2K	0.5%	1/10W
R527	1-216-001-00	RES-CHIP	10	5%	1/10W
R528	1-208-814-91	METAL CHIP	22K	0.5%	1/10W
R529	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R531	1-247-843-11	CARBON	3.3K	5%	1/4W
R533	1-249-417-11	CARBON	1K	5%	1/4W
R534	1-216-364-11	METAL OXIDE	0.39	5%	2W
R535	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R536	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R537	1-208-804-11	METAL CHIP	8.2K	0.5%	1/10W
R539	1-216-049-11	RES-CHIP	1K	5%	1/10W
R540	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R541	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R542	1-216-073-00	RES-CHIP	10K	5%	1/10W
R543	1-216-437-00	METAL OXIDE	5.6K	5%	1W
R544	1-215-917-11	METAL OXIDE	1K	5%	3W
R545	1-216-077-91	RES-CHIP	15K	5%	1/10W
R546	1-216-077-91	RES-CHIP	15K	5%	1/10W
R547	1-216-085-00	RES-CHIP	33K	5%	1/10W
R548	1-208-796-11	METAL CHIP	3.9K	0.5%	1/10W
R549	1-215-452-00	METAL	20K	1%	1/4W
R550	1-216-097-11	RES-CHIP	100K	5%	1/10W
R551	1-249-441-11	CARBON	100K	5%	1/4W
R552	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R553	1-215-453-00	METAL	22K	1%	1/4W
R554	1-215-453-00	METAL	22K	1%	1/4W
R556	1-215-437-00	METAL	4.7K	1%	1/4W
R558	1-247-843-11	CARBON	3.3K	5%	1/4W
R559	1-249-429-11	CARBON	10K	5%	1/4W
R560	1-216-073-00	RES-CHIP	10K	5%	1/10W
R561	1-216-049-11	RES-CHIP	1K	5%	1/10W
R562	1-249-401-11	CARBON	47	5%	1/4W
R564	1-208-820-11	METAL CHIP	39K	0.5%	1/10W
R565	1-216-073-00	RES-CHIP	10K	5%	1/10W
R567	1-216-105-91	RES-CHIP	220K	5%	1/10W
R568	1-249-383-11	CARBON	1.5	5%	1/4W
R570	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R571	1-215-443-00	METAL	8.2K	1%	1/4W
R573	1-216-083-00	RES-CHIP	27K	5%	1/10W
R575	1-208-796-11	METAL CHIP	3.9K	0.5%	1/10W
R577	1-215-913-11	METAL OXIDE	220	5%	3W
R578	1-216-369-00	METAL OXIDE	1	5%	2W
R579	1-216-295-11	SHORT	0		
R580	1-208-830-11	METAL CHIP	100K	0.5%	1/10W
R581	1-208-790-11	METAL CHIP	2.2K	0.5%	1/10W
R582	1-208-842-11	METAL CHIP (KV-XA29M84 ONLY)	330K	0.5%	1/10W

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The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

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REF. NO.		PART NO.	DESCRIPTION			REMARK
R584		1-208-838-91	METAL CHIP	220K	0.5%	1/10W
R585		1-249-385-11	CARBON	2.2	5%	1/4W
R587		1-208-822-11	METAL CHIP	47K	0.5%	1/10W
R588		1-215-888-00	METAL OXIDE	220	5%	2W
R589		1-215-888-00	METAL OXIDE	220	5%	2W
R590		1-215-465-00	METAL	68K	1%	1/4W
R591		1-260-288-11	CARBON	0.47	5%	1/2W
R592		1-208-820-11	METAL CHIP	39K	0.5%	1/10W
R593		1-260-288-11	CARBON	0.47	5%	1/2W
R594		1-260-288-11	CARBON	0.47	5%	1/2W
R595		1-216-073-00	RES-CHIP	10K	5%	1/10W
R596		1-215-916-00	METAL OXIDE	680	5%	3W
R597		1-247-750-11	CARBON	680	5%	1/2W
R598		1-249-438-11	CARBON	56K	5%	1/4W
R599		1-249-389-11	CARBON	4.7	5%	1/4W
R600		1-249-438-11	CARBON	56K	5%	1/4W
R601		1-249-420-11	CARBON	1.8K	5%	1/4W
R602		1-249-389-11	CARBON	4.7	5%	1/4W
R603		1-215-485-00	METAL	470K	1%	1/4W
R604		1-216-097-11	RES-CHIP	100K	5%	1/10W
R607		1-249-425-11	CARBON	4.7K	5%	1/4W
R608		1-240-205-91	CARBON	22M	5%	1/2W
R609		1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R610		1-216-073-00	RES-CHIP	10K	5%	1/10W
R611		1-216-089-11	RES-CHIP	47K	5%	1/10W
R612		1-216-045-00	RES-CHIP	680	5%	1/10W
R614		1-216-041-00	RES-CHIP	470	5%	1/10W
R615		1-216-369-00	METAL OXIDE	1	5%	2W
R616		1-260-302-51	CARBON	6.8	5%	1/2W
R617		1-247-791-91	CARBON	22	5%	1/4W
R619		1-260-128-11	CARBON	270K	5%	1/2W
R621		1-215-864-00	METAL OXIDE	150	5%	1W
R623		1-216-095-00	RES-CHIP	82K	5%	1/10W
R624		1-216-089-11	RES-CHIP	47K	5%	1/10W
R626		1-216-049-11	RES-CHIP	1K	5%	1/10W
R627		1-240-251-11	CEMENTED	6.8	5%	10W
R629		1-247-747-11	CARBON	470	5%	1/2W
R630		1-249-429-11	CARBON	10K	5%	1/4W
R631		1-216-089-11	RES-CHIP	47K	5%	1/10W
R632		1-220-886-11	FUSIBLE	0.1	10%	1W
R634	⚠	1-218-265-11	METAL	8.2M	5%	1W
R635		1-216-492-11	METAL OXIDE	82K	5%	3W
R636		1-215-924-00	METAL OXIDE	15K	5%	3W
R637		1-216-492-11	METAL OXIDE	82K	5%	3W
R639		1-216-361-00	METAL OXIDE	0.22	5%	2W
R640		1-249-415-11	CARBON	680	5%	1/4W
R641		1-216-361-00	METAL OXIDE	0.22	5%	2W
R642		1-249-419-11	CARBON	1.5K	5%	1/4W
R643		1-247-843-11	CARBON	3.3K	5%	1/4W
R644		1-249-419-11	CARBON	1.5K	5%	1/4W
R646		1-215-924-00	METAL OXIDE	15K	5%	3W
R647		1-249-387-11	CARBON	3.3	5%	1/4W
R648		1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R649		1-249-417-11	CARBON	1K	5%	1/4W
R650		1-215-882-00	METAL OXIDE	22	5%	2W
R652		1-215-900-11	METAL OXIDE	22K	5%	2W
R653		1-215-873-00	METAL OXIDE	4.7K	5%	1W
R656		1-249-417-11	CARBON	1K	5%	1/4W
R657		1-260-127-11	CARBON	220K	5%	1/2W
R659		1-216-049-11	RES-CHIP	1K	5%	1/10W
R660		1-216-073-00	RES-CHIP	10K	5%	1/10W
R661		1-215-873-00	METAL OXIDE	4.7K	5%	1W
R682		1-219-134-11	FUSIBLE	0.1	10%	1/4W
R909		1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R910		1-216-065-91	RES-CHIP	4.7K	5%	1/10W

<RELAY>

RY600	⚠	1-755-214-11	RELAY, AC POWER
RY601	⚠	1-755-214-11	RELAY, AC POWER

<SWITCH>

S501		1-572-707-11	SWITCH, LEVER
S502		1-572-707-11	SWITCH, LEVER

<TRANSFORMER>

T501		1-437-195-11	TRANSFORMER, HORIZONTAL DRIVE
T503	⚠	1-453-284-11	TRANSFORMER ASSY FLYBACK NX-4009/M314
			(KV-XA29M60 ONLY)
T503	⚠	1-453-305-11	TRANSFORMER ASSY FLYBACK NX-4009/C6P4
			(KV-XA29M84 ONLY)
T504		1-431-693-11	TRANSFORMER, HORIZONTAL LINEAR
T505		1-426-981-11	TRANSFORMER, FERRITE (PMT)
T601		1-424-505-11	TRANSFORMER, LINE FILTER
T603	⚠	1-431-976-11	TRANSFORMER, CONVERTER (SRT)
T604	⚠	1-431-852-11	TRANSFORMER, CONVERTER (SRT)

<THERMISTOR>

TH600		1-803-586-11	THERMISTOR, NTC

<THERMISTOR>

THP600		1-803-540-11	THERMISTOR

<TUNER>

TU101		8-598-451-00	TUNER, FSS BTF-WG441(KV-XA29M60 ONLY)
TU101		8-598-450-10	TUNER, FSS BTF-LG434(KV-XA29M84 ONLY)

<CRYSTAL>

X001		1-781-174-21	VIBRATOR, CERAMIC
X301		1-781-134-21	VIBRATOR, CRYSTAL
X302		1-781-132-21	VIBRATOR, CRYSTAL

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B

REF. NO.	PART NO.	DESCRIPTION			REMARK
	* A-1136-153-A	B BOARD COMPLETE (KV-XA29M60)			
	A-1136-140-A	B BOARD COMPLETE (KV-XA29M84)			
		**********			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
		<CAPACITOR>			
C1305	1-163-038-11	CERAMIC CHIP	0.1UF		25V
C1307	1-164-346-11	CERAMIC CHIP	1UF		16V
C1310	1-104-664-11	ELECT	47UF	20.00%	16V
C1312	1-104-664-11	ELECT	47UF	20.00%	16V
C1330	1-126-964-11	ELECT	10UF	20.00%	50V
C1333	1-163-038-11	CERAMIC CHIP	0.1UF		25V
C1395	1-163-249-11	CERAMIC CHIP	82PF	5.00%	50V
C1401	1-104-661-91	ELECT	330UF	20.00%	16V
C1402	1-104-664-11	ELECT	47UF	20.00%	25V
C1403	1-104-664-11	ELECT	47UF	20.00%	25V
C1404	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C1405	1-104-664-11	ELECT	47UF	20.00%	25V
C1406	1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
C1407	1-126-933-11	ELECT (KV-XA29M84 ONLY)	100UF	20.00%	16V
C1408	1-126-964-11	ELECT	10UF	20.00%	50V
C1410	1-104-664-11	ELECT	47UF	20.00%	25V
C1411	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C1412	1-163-038-11	CERAMIC CHIP (KV-XA29M84 ONLY)	0.1UF		25V
C1413	1-126-935-11	ELECT	470UF	20.00%	16V
C1414	1-164-346-11	CERAMIC CHIP	1UF		16V
C1415	1-104-664-11	ELECT	47UF	20.00%	25V
C1416	1-164-346-11	CERAMIC CHIP	1UF		16V
C1417	1-126-933-11	ELECT (KV-XA29M84 ONLY)	100UF	20.00%	16V
C1418	1-163-031-11	CERAMIC CHIP	0.01UF		50V
C1419	1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
C1420	1-163-038-11	CERAMIC CHIP (KV-XA29M84 ONLY)	0.1UF		25V
C1421	1-164-346-11	CERAMIC CHIP	1UF		16V
C1422	1-164-346-11	CERAMIC CHIP	1UF		16V
C1423	1-164-346-11	CERAMIC CHIP	1UF		16V
C1425	1-164-346-11	CERAMIC CHIP	1UF		16V
C1426	1-164-346-11	CERAMIC CHIP	1UF		16V
C1428	1-104-665-11	ELECT	100UF	20.00%	25V
C1429	1-104-663-11	ELECT	33UF	20.00%	25V
C1431	1-163-038-11	CERAMIC CHIP	0.1UF		25V
C1430	1-164-004-11	CERAMIC CHIP (KV-XA29M84 ONLY)	0.1UF	10.00%	25V
C1432	1-126-933-11	ELECT	100UF	20.00%	16V
C1433	1-104-664-11	ELECT	47UF	20.00%	16V
C1434	1-163-133-00	CERAMIC CHIP	470PF	5.00%	50V
C1435	1-163-038-11	CERAMIC CHIP	0.1UF		25V
C1436	1-163-038-11	CERAMIC CHIP	0.1UF		25V
C1438	1-163-005-11	CERAMIC CHIP (KV-XA29M84 ONLY)	470PF	10.00%	50V
C1439	1-163-133-00	CERAMIC CHIP	470PF	5.00%	50V
C1440	1-163-133-00	CERAMIC CHIP	470PF	5.00%	50V
C1441	1-163-133-00	CERAMIC CHIP	470PF	5.00%	50V
C1442	1-163-133-00	CERAMIC CHIP	470PF	5.00%	50V
C1443	1-163-133-00	CERAMIC CHIP	470PF	5.00%	50V
C1444	1-164-005-11	CERAMIC CHIP	0.47UF		25V
C1445	1-163-133-00	CERAMIC CHIP	470PF	5.00%	50V
C1446	1-163-133-00	CERAMIC CHIP	470PF	5.00%	50V
C1447	1-126-964-11	ELECT	10UF	20.00%	50V
C1448	1-164-005-11	CERAMIC CHIP	0.47UF		25V
C1449	1-126-933-11	ELECT	100UF	20.00%	16V
C1450	1-163-005-11	CERAMIC CHIP (KV-XA29M84 ONLY)	470PF	10.00%	50V
C1451	1-163-005-11	CERAMIC CHIP (KV-XA29M84 ONLY)	470PF	10.00%	50V
C1452	1-163-005-11	CERAMIC CHIP (KV-XA29M84 ONLY)	470PF	10.00%	50V
C1453	1-126-933-11	ELECT (KV-XA29M84 ONLY)	100UF	20.00%	16V
C1454	1-126-967-11	ELECT (KV-XA29M84 ONLY)	47UF	20.00%	50V
C1455	1-126-967-11	ELECT (KV-XA29M84 ONLY)	47UF	20.00%	50V
C1456	1-126-933-11	ELECT (KV-XA29M84 ONLY)	100UF	20.00%	16V
C1457	1-164-346-11	CERAMIC CHIP	1UF		16V
C1458	1-126-933-11	ELECT (KV-XA29M84 ONLY)	100UF	20.00%	16V
C1459	1-163-133-00	CERAMIC CHIP	470PF	5.00%	50V
C1460	1-163-133-00	CERAMIC CHIP	470PF	5.00%	50V
C1461	1-164-346-11	CERAMIC CHIP	1UF		16V
C1462	1-164-346-11	CERAMIC CHIP	1UF		16V
C1464	1-126-933-11	ELECT	100UF	20.00%	16V
C3201	1-126-964-11	ELECT	10UF	20.00%	50V
C3202	1-136-171-00	FILM	0.33UF	5.00%	50V
C3203	1-115-339-11	CERAMIC CHIP	0.1UF	10.00%	50V
C3208	1-163-021-91	CERAMIC CHIP	0.01UF	10.00%	50V
C3209	1-164-489-11	CERAMIC CHIP	0.22UF	10.00%	16V
C3210	1-163-017-00	CERAMIC CHIP	0.0047UF	10.00%	50V
C3211	1-164-489-11	CERAMIC CHIP	0.22UF	10.00%	16V
C3213	1-104-665-11	ELECT	100UF	20.00%	25V
C3214	1-115-339-11	CERAMIC CHIP	0.1UF	10.00%	50V
C3215	1-126-964-11	ELECT	10UF	20.00%	50V
C3216	1-126-964-11	ELECT	10UF	20.00%	50V
C3217	1-104-665-11	ELECT	100UF	20.00%	25V
C3218	1-163-017-00	CERAMIC CHIP	0.0047UF	10.00%	50V
C3219	1-163-021-91	CERAMIC CHIP	0.01UF	10.00%	50V
C3220	1-163-037-11	CERAMIC CHIP	0.022UF	10.00%	50V
C3221	1-163-037-11	CERAMIC CHIP	0.022UF	10.00%	50V
C3222	1-163-037-11	CERAMIC CHIP	0.022UF	10.00%	50V
C3223	1-163-037-11	CERAMIC CHIP	0.022UF	10.00%	50V
C3224	1-164-505-11	CERAMIC CHIP	2.2UF		16V
C3225	1-163-038-11	CERAMIC CHIP	0.1UF		25V
C3226	1-126-964-11	ELECT	10UF	20.00%	50V
C3227	1-164-505-11	CERAMIC CHIP	2.2UF		16V
C3228	1-107-698-11	ELECT	10UF	20.00%	25V
C3229	1-107-698-11	ELECT	10UF	20.00%	25V
C3230	1-163-017-00	CERAMIC CHIP	0.0047UF	10.00%	50V
C3231	1-126-960-11	ELECT	1UF	20.00%	50V
C3232	1-126-960-11	ELECT	1UF	20.00%	50V
C3233	1-163-017-00	CERAMIC CHIP	0.0047UF	10.00%	50V
C3234	1-117-720-11	CERAMIC CHIP	4.7UF		10V

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REF. NO.	PART NO.	DESCRIPTION			REMARK
C3235	1-117-720-11	CERAMIC CHIP	4.7UF		10V
C3236	1-115-185-11	CERAMIC CHIP	0.033UF	10.00%	50V
C3237	1-164-182-11	CERAMIC CHIP	0.0033UF	10.00%	50V
C3238	1-164-005-11	CERAMIC CHIP	0.47UF		25V
C3239	1-136-171-00	FILM	0.33UF	5.00%	50V
C3240	1-126-963-11	ELECT	4.7UF	20.00%	50V
C3241	1-126-963-11	ELECT	4.7UF	20.00%	50V
C3242	1-126-965-11	ELECT	22UF	20.00%	50V
C3243	1-163-989-11	CERAMIC CHIP	0.033UF	10.00%	25V
C3244	1-164-346-11	CERAMIC CHIP	1UF		16V
C3245	1-164-005-11	CERAMIC CHIP	0.47UF		25V
C3246	1-163-243-11	CERAMIC CHIP	47PF	5.00%	50V
C3247	1-126-963-11	ELECT	4.7UF	20.00%	50V
C3248	1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
C3249	1-164-505-11	CERAMIC CHIP	2.2UF		16V
C3250	1-164-346-11	CERAMIC CHIP	1UF		16V
C3251	1-126-964-11	ELECT	10UF	20.00%	50V
C3252	1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
C3253	1-126-933-11	ELECT	100UF	20.00%	16V
C3254	1-164-505-11	CERAMIC CHIP	2.2UF		16V
C3255	1-163-243-11	CERAMIC CHIP	47PF	5.00%	50V
C3256	1-126-963-11	ELECT	4.7UF	20.00%	50V
C3257	1-164-346-11	CERAMIC CHIP	1UF		16V
C3258	1-163-989-11	CERAMIC CHIP	0.033UF	10.00%	25V
C3259	1-126-963-11	ELECT	4.7UF	20.00%	50V
C3260	1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
C3262	1-104-664-11	ELECT	47UF	20.00%	16V
C3264	1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
C3265	1-117-720-11	CERAMIC CHIP	4.7UF		10V
C3266	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C3267	1-164-182-11	CERAMIC CHIP	0.0033UF	10.00%	50V
C3268	1-163-009-11	CERAMIC CHIP	0.001UF	10.00%	50V
C3269	1-163-009-11	CERAMIC CHIP	0.001UF	10.00%	50V
C3270	1-126-963-11	ELECT	4.7UF	20.00%	50V
C3271	1-126-963-11	ELECT	4.7UF	20.00%	50V
C3272	1-104-665-11	ELECT	100UF	20.00%	25V
C3273	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C3274	1-117-720-11	CERAMIC CHIP	4.7UF		10V
C3275	1-115-185-11	CERAMIC CHIP	0.033UF	10.00%	50V
C3276	1-115-185-11	CERAMIC CHIP	0.033UF	10.00%	50V
C3277	1-115-185-11	CERAMIC CHIP	0.033UF	10.00%	50V
C3280	1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
C3281	1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
C6200	1-216-295-11	SHORT	0		
C6202	1-128-550-11	ELECT	2200UF	20.00%	50V
C6203	1-163-021-91	CERAMIC CHIP	0.01UF	10.00%	50V
C6204	1-128-550-11	ELECT	2200UF	20.00%	50V
C6205	1-130-495-00	MYLAR	0.1UF	5.00%	50V
C6206	1-128-550-11	ELECT	2200UF	20.00%	50V
C6209	1-130-495-00	MYLAR	0.1UF	5.00%	50V
C6210	1-126-924-11	ELECT	330UF	20.00%	10V
C6211	1-126-924-11	ELECT	330UF	20.00%	10V
C6212	1-104-664-11	ELECT	47UF	20.00%	25V
C6213	1-126-964-11	ELECT	10UF	20.00%	50V
C6217	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C6220	1-164-505-11	CERAMIC CHIP	2.2UF		16V
C6222	1-164-505-11	CERAMIC CHIP	2.2UF		16V

REF. NO.	PART NO.	DESCRIPTION			REMARK
C6223	1-126-960-11	ELECT	1UF	20.00%	50V
C6241	1-126-964-11	ELECT	10UF	20.00%	50V
C6244	1-163-017-00	CERAMIC CHIP	0.0047UF	10.00%	50V
C6245	1-163-017-00	CERAMIC CHIP	0.0047UF	10.00%	50V
C6249	1-216-295-11	SHORT	0		
		<CONNECTOR>			
CN1300*	1-564-506-11	PLUG, CONNECTOR 3P			
CN1400*	1-564-512-11	PLUG, CONNECTOR 9P			
CN1401*	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P			
CN1403*	1-564-506-11	PLUG, CONNECTOR 3P			
CN1404*	1-779-891-11	CONNECTOR, BOARD TO BOARD 8P (KV-XA29M84 ONLY)			
CN1405*	1-779-892-11	CONNECTOR, BOARD TO BOARD 10P			
CN1406*	1-779-892-11	CONNECTOR, BOARD TO BOARD 10P			
CN1407*	1-779-891-11	CONNECTOR, BOARD TO BOARD 8P			
CN1408	1-764-818-11	CONNECTOR, BOARD TO BOARD 10P (KV-XA29M84 ONLY)			
CN1409	1-764-818-11	CONNECTOR, BOARD TO BOARD 10P			
CN6200*	1-564-507-11	PLUG, CONNECTOR 4P			
CN6204*	1-564-509-11	PLUG, CONNECTOR 6P			
CN6206*	1-564-508-11	PLUG, CONNECTOR 5P			
		<DIODE>			
D1401	8-719-069-60	UDZS-TE17-9.1B(KV-XA29M60 ONLY)			
D1401	8-719-158-35	RD9.1S-B(KV-XA29M84 ONLY)			
D1402	8-719-069-60	UDZS-TE17-9.1B(KV-XA29M60 ONLY)			
D1402	8-719-158-35	RD9.1S-B(KV-XA29M84 ONLY)			
D1403	8-719-069-60	UDZS-TE17-9.1B(KV-XA29M60 ONLY)			
D1403	8-719-158-35	RD9.1S-B(KV-XA29M84 ONLY)			
D1404	8-719-069-60	UDZS-TE17-9.1B(KV-XA29M60 ONLY)			
D1404	8-719-158-35	RD9.1S-B(KV-XA29M84 ONLY)			
D1405	8-719-069-60	UDZS-TE17-9.1B(KV-XA29M60 ONLY)			
D1405	8-719-158-35	RD9.1S-B(KV-XA29M84 ONLY)			
D1406	8-719-069-60	UDZS-TE17-9.1B(KV-XA29M60 ONLY)			
D1406	8-719-158-35	RD9.1S-B(KV-XA29M84 ONLY)			
D1407	8-719-069-60	UDZS-TE17-9.1B(KV-XA29M60 ONLY)			
D1407	8-719-158-35	RD9.1S-B(KV-XA29M84 ONLY)			
D1408	8-719-069-60	UDZS-TE17-9.1B(KV-XA29M60 ONLY)			
D1408	8-719-158-35	RD9.1S-B(KV-XA29M84 ONLY)			
D1409	8-719-069-60	UDZS-TE17-9.1B(KV-XA29M60 ONLY)			
D1409	8-719-158-35	RD9.1S-B(KV-XA29M84 ONLY)			
D1410	8-719-069-60	UDZS-TE17-9.1B(KV-XA29M60 ONLY)			
D1410	8-719-158-35	RD9.1S-B(KV-XA29M84 ONLY)			
D1411	8-719-069-60	UDZS-TE17-9.1B(KV-XA29M60 ONLY)			
D1411	8-719-158-35	RD9.1S-B(KV-XA29M84 ONLY)			
D1412	8-719-069-60	UDZS-TE17-9.1B(KV-XA29M60 ONLY)			
D1412	8-719-158-35	RD9.1S-B(KV-XA29M84 ONLY)			
D1415	8-719-069-60	UDZS-TE17-9.1B(KV-XA29M60 ONLY)			
D1415	8-719-158-35	RD9.1S-B(KV-XA29M84 ONLY)			
D1416	8-719-069-60	UDZS-TE17-9.1B(KV-XA29M60 ONLY)			
D1416	8-719-158-35	RD9.1S-B(KV-XA29M84 ONLY)			
D1418	8-719-069-60	UDZS-TE17-9.1B(KV-XA29M60 ONLY)			
D1418	8-719-158-35	RD9.1S-B(KV-XA29M84 ONLY)			
D3201	8-719-988-61	1SS355TE-17			
D3203	8-719-988-61	1SS355TE-17			

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REF. NO.	PART NO.	DESCRIPTION	REMARK
D6210	8-719-820-41	1SS302	
D6211	8-719-073-01	MA111-(K8).S0(KV-XA29M60 ONLY)	
D6211	8-719-988-61	1SS355TE-17(KV-XA29M84 ONLY)	
D6212	8-719-073-01	MA111-(K8).S0(KV-XA29M60 ONLY)	
D6212	8-719-988-61	1SS355TE-17(KV-XA29M84 ONLY)	
		<IC>	
IC1401	8-752-068-46	CXA1855S	
IC1402	8-759-100-96	UPC4558G2	
IC1403	8-759-231-53	TA7805S(KV-XA29M84 ONLY)	
IC1404	8-759-701-59	NJM78M09FA	
IC3200	8-759-100-96	UPC4558G2	
IC3201	8-759-689-71	NJM2188M-TE2	
IC3202	8-759-100-96	UPC4558G2	
IC3203	8-759-711-10	NJU4066BM	
IC3204	8-759-100-96	UPC4558G2	
IC3205	8-752-058-68	CXA1315M	
IC3206	8-759-690-57	BH3868BFS-E2	
IC6200	8-759-168-24	TA8200AH	
		<JACK>	
J1401	1-784-646-11	TERMINAL, S	
J1402	1-778-387-11	JACK BLOCK, PIN 12P	
		<CHIP CONDUCTOR>	
JR1303	1-216-295-11	SHORT	0
JR1401	1-216-295-11	SHORT	0(KV-XA29M84 ONLY)
JR1405	1-216-295-11	SHORT	0
JR1406	1-216-295-11	SHORT	0
JR1407	1-216-295-11	SHORT	0
JR1409	1-216-295-11	SHORT	0
JR1410	1-216-295-11	SHORT	0
JR1411	1-216-295-11	SHORT	0
JR3202	1-216-295-11	SHORT	0
JR3204	1-216-295-11	SHORT	0
JR3209	1-216-295-11	SHORT	0
JR3210	1-216-295-11	SHORT	0
JR3211	1-216-295-11	SHORT	0
JR3212	1-216-295-11	SHORT	0
JR6200	1-216-295-11	SHORT	0
JR6202	1-216-295-11	SHORT	0
JR6203	1-216-295-11	SHORT	0
JR6204	1-216-295-11	SHORT	0
JR6206	1-216-295-11	SHORT	0
		<COIL>	
L1313	1-414-187-11	INDUCTOR	47UH
L1314	1-414-856-11	INDUCTOR	10UH
L1315	1-414-856-11	INDUCTOR	10UH
L1317	1-414-856-11	INDUCTOR	10UH
L1400	1-414-856-11	INDUCTOR	10UH (KV-XA29M84 ONLY)
L1402	1-412-537-31	INDUCTOR	100UH (KV-XA29M84 ONLY)
L1403	1-414-856-11	INDUCTOR	10UH (KV-XA29M84 ONLY)

REF. NO.	PART NO.	DESCRIPTION	REMARK
L1404	1-412-537-31	INDUCTOR	100UH
L1405	1-414-856-11	INDUCTOR	10UH(KV-XA29M84 ONLY)
L1406	1-414-856-11	INDUCTOR	10UH(KV-XA29M84 ONLY)
L1407	1-414-856-11	INDUCTOR	10UH(KV-XA29M84 ONLY)
L3202	1-414-856-11	INDUCTOR	10UH
		<TRANSISTOR>	
Q1316	8-729-026-49	2SA1037AK-T146-R(KV-XA29M60 ONLY)	
Q1316	8-729-216-22	2SA1162-G(KV-XA29M84 ONLY)	
Q1317	8-729-120-28	2SC1623-L5L6(KV-XA29M60 ONLY)	
Q1317	8-729-230-49	2SC2712-YG(KV-XA29M84 ONLY)	
Q1318	8-729-120-28	2SC1623-L5L6(KV-XA29M60 ONLY)	
Q1318	8-729-230-49	2SC2712-YG(KV-XA29M84 ONLY)	
Q1323	8-729-120-28	2SC1623-L5L6(KV-XA29M60 ONLY)	
Q1323	8-729-230-49	2SC2712-YG(KV-XA29M84 ONLY)	
Q1324	8-729-120-28	2SC1623-L5L6(KV-XA29M60 ONLY)	
Q1324	8-729-230-49	2SC2712-YG(KV-XA29M84 ONLY)	
Q1365	8-729-120-28	2SC1623-L5L6(KV-XA29M60 ONLY)	
Q1365	8-729-230-49	2SC2712-YG(KV-XA29M84 ONLY)	
Q1372	8-729-120-28	2SC1623-L5L6(KV-XA29M60 ONLY)	
Q1372	8-729-230-49	2SC2712-YG(KV-XA29M84 ONLY)	
Q1401	8-729-230-49	2SC2712-YG(KV-XA29M60 ONLY)	
Q1402	8-729-026-49	2SA1037AK-T146-R(KV-XA29M60 ONLY)	
Q1403	8-729-120-28	2SC1623-L5L6(KV-XA29M60 ONLY)	
Q1403	8-729-230-49	2SC2712-YG(KV-XA29M84 ONLY)	
Q1404	8-729-120-28	2SC1623-L5L6(KV-XA29M60 ONLY)	
Q1404	8-729-230-49	2SC2712-YG(KV-XA29M84 ONLY)	
Q1408	8-729-230-49	2SC2712-YG	
Q1409	8-729-230-49	2SC2712-YG	
Q1410	8-729-230-49	2SC2712-YG(KV-XA29M84 ONLY)	
Q3201	8-729-224-62	2SK246-GR	
Q3202	8-729-230-49	2SC2712-YG	
Q3203	8-729-230-49	2SC2712-YG	
Q3204	8-729-224-62	2SK246-GR	
Q6201	8-729-421-19	UN2213	
Q6203	8-729-421-19	UN2213	
Q6204	8-729-421-19	UN2213	
Q6208	8-729-421-19	UN2213	
		<RESISTOR>	
R1301	1-216-041-00	RES-CHIP 470	5% 1/10W
R1318	1-216-033-00	RES-CHIP 220	5% 1/10W
R1320	1-216-081-00	RES-CHIP 22K	5% 1/10W
R1343	1-216-049-11	RES-CHIP 1K (KV-XA29M60 ONLY)	5% 1/10W
R1344	1-216-025-11	RES-CHIP 100	5% 1/10W
R1345	1-216-041-00	RES-CHIP 470	5% 1/10W
R1346	1-216-041-00	RES-CHIP 470	5% 1/10W
R1347	1-216-025-11	RES-CHIP 100	5% 1/10W
R1350	1-216-085-00	RES-CHIP 33K	5% 1/10W
R1359	1-216-025-11	RES-CHIP 100	5% 1/10W
R1360	1-216-041-00	RES-CHIP 470	5% 1/10W
R1361	1-216-041-00	RES-CHIP 470	5% 1/10W
R1362	1-216-055-00	RES-CHIP 1.8K	5% 1/10W
R1363	1-216-033-00	RES-CHIP 220	5% 1/10W
R1364	1-216-089-11	RES-CHIP 47K	5% 1/10W

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B

REF. NO.	PART NO.	DESCRIPTION			REMARK
R1365	1-216-081-00	RES-CHIP	22K	5%	1/10W
R1366	1-216-295-11	SHORT	0		
R1368	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1369	1-216-025-11	RES-CHIP	100	5%	1/10W
R1370	1-216-041-00	RES-CHIP	470	5%	1/10W
R1371	1-216-039-00	RES-CHIP	390	5%	1/10W
R1372	1-216-041-00	RES-CHIP	470	5%	1/10W
R1397	1-216-045-00	RES-CHIP	680	5%	1/10W
R1400	1-216-105-91	RES-CHIP	220K	5%	1/10W
R1401	1-216-031-00	RES-CHIP	180	5%	1/10W
		(KV-XA29M84 ONLY)			
R1402	1-216-033-00	RES-CHIP	220	5%	1/10W
		(KV-XA29M84 ONLY)			
R1403	1-216-033-00	RES-CHIP	220	5%	1/10W
R1404	1-216-295-11	SHORT	0		
R1406	1-216-013-00	RES-CHIP	33	5%	1/10W
R1407	1-216-033-00	RES-CHIP	220	5%	1/10W
R1408	1-216-031-00	RES-CHIP	180	5%	1/10W
R1409	1-216-105-91	RES-CHIP	220K	5%	1/10W
R1410	1-216-105-91	RES-CHIP	220K	5%	1/10W
R1411	1-216-089-11	RES-CHIP	47K	5%	1/10W
R1412	1-216-089-11	RES-CHIP	47K	5%	1/10W
R1413	1-216-105-91	RES-CHIP	220K	5%	1/10W
R1414	1-216-025-11	RES-CHIP	100	5%	1/10W
R1417	1-216-025-11	RES-CHIP	100	5%	1/10W
R1418	1-216-025-11	RES-CHIP	100	5%	1/10W
R1419	1-216-025-11	RES-CHIP	100	5%	1/10W
		(KV-XA29M84 ONLY)			
R1420	1-216-073-00	RES-CHIP	10K	5%	1/10W
		(KV-XA29M84 ONLY)			
R1421	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R1423	1-216-025-11	RES-CHIP	100	5%	1/10W
		(KV-XA29M84 ONLY)			
R1424	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1425	1-216-047-91	RES-CHIP	820	5%	1/10W
R1426	1-216-025-11	RES-CHIP	100	5%	1/10W
R1427	1-216-063-91	RES-CHIP	3.9K	5%	1/10W
R1428	1-216-025-11	RES-CHIP	100	5%	1/10W
R1429	1-216-089-11	RES-CHIP	47K	5%	1/10W
R1430	1-216-025-11	RES-CHIP	100	5%	1/10W
R1431	1-216-025-11	RES-CHIP	100	5%	1/10W
R1432	1-216-041-00	RES-CHIP	470	5%	1/10W
R1433	1-216-025-11	RES-CHIP	100	5%	1/10W
R1434	1-216-025-11	RES-CHIP	100	5%	1/10W
		(KV-XA29M84 ONLY)			
R1435	1-216-022-00	RES-CHIP	75	5%	1/10W
R1436	1-216-025-11	RES-CHIP	100	5%	1/10W
R1437	1-216-022-00	RES-CHIP	75	5%	1/10W
R1438	1-216-025-11	RES-CHIP	100	5%	1/10W
R1439	1-216-295-11	SHORT	0		
R1441	1-216-025-11	RES-CHIP	100	5%	1/10W
R1442	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1443	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1444	1-216-089-11	RES-CHIP	47K	5%	1/10W
R1445	1-216-025-11	RES-CHIP	100	5%	1/10W
R1446	1-216-105-91	RES-CHIP	220K	5%	1/10W
R1447	1-216-025-11	RES-CHIP	100	5%	1/10W
R1448	1-216-043-91	RES-CHIP	560	5%	1/10W
R1449	1-249-429-11	CARBON	10K	5%	1/4W

REF. NO.	PART NO.	DESCRIPTION			REMARK
R1450	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1451	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1452	1-216-089-11	RES-CHIP	47K	5%	1/10W
R1453	1-216-025-11	RES-CHIP	100	5%	1/10W
R1454	1-216-091-00	RES-CHIP	56K	5%	1/10W
R1455	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1456	1-216-113-00	RES-CHIP	470K	5%	1/10W
R1457	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1458	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1459	1-216-025-11	RES-CHIP	100	5%	1/10W
R1460	1-216-033-00	RES-CHIP	220	5%	1/10W
R1461	1-216-025-11	RES-CHIP	100	5%	1/10W
R1462	1-216-025-11	RES-CHIP	100	5%	1/10W
		(KV-XA29M84 ONLY)			
R1463	1-249-429-11	CARBON	10K	5%	1/4W
R1464	1-216-113-00	RES-CHIP	470K	5%	1/10W
R1465	1-216-113-00	RES-CHIP	470K	5%	1/10W
R1466	1-216-033-00	RES-CHIP	220	5%	1/10W
R1467	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R1468	1-216-093-91	RES-CHIP	68K	5%	1/10W
R1469	1-216-105-91	RES-CHIP	220K	5%	1/10W
R1470	1-216-105-91	RES-CHIP	220K	5%	1/10W
R1471	1-216-022-00	RES-CHIP	75	5%	1/10W
R1472	1-216-033-00	RES-CHIP	220	5%	1/10W
R1473	1-216-033-00	RES-CHIP	220	5%	1/10W
R1474	1-216-295-11	SHORT	0(KV-XA29M84 ONLY)		
R1475	1-216-089-11	RES-CHIP	47K	5%	1/10W
R1476	1-216-091-00	RES-CHIP	56K	5%	1/10W
R1477	1-216-047-91	RES-CHIP	820	5%	1/10W
R1478	1-216-051-00	RES-CHIP	1.2K	5%	1/10W
R1479	1-216-105-91	RES-CHIP	220K	5%	1/10W
R1480	1-216-105-91	RES-CHIP	220K	5%	1/10W
R1481	1-216-022-00	RES-CHIP	75	5%	1/10W
R1482	1-216-025-11	RES-CHIP	100	5%	1/10W
R1483	1-216-025-11	RES-CHIP	100	5%	1/10W
R1484	1-216-025-11	RES-CHIP	100	5%	1/10W
R1485	1-216-025-11	RES-CHIP	100	5%	1/10W
R1486	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R1487	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R1488	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R1489	1-216-022-00	RES-CHIP	75	5%	1/10W
R1490	1-216-025-11	RES-CHIP	100	5%	1/10W
R1491	1-216-025-11	RES-CHIP	100	5%	1/10W
R1492	1-216-021-00	RES-CHIP	68	5%	1/10W
R1493	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R1494	1-216-031-00	RES-CHIP	180	5%	1/10W
		(KV-XA29M84 ONLY)			
R1495	1-216-033-00	RES-CHIP	220	5%	1/10W
		(KV-XA29M84 ONLY)			
R1496	1-216-041-00	RES-CHIP	470	5%	1/10W
R1497	1-216-041-00	RES-CHIP	470	5%	1/10W
R1498	1-216-025-11	RES-CHIP	100	5%	1/10W
R1499	1-216-025-11	RES-CHIP	100	5%	1/10W
R1500	1-216-025-11	RES-CHIP	100	5%	1/10W
R1501	1-216-045-00	RES-CHIP	680	5%	1/10W
R1503	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1504	1-216-073-00	RES-CHIP	10K	5%	1/10W

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B **B1** (KV-XA29M60 only)

REF. NO.	PART NO.	DESCRIPTION			REMARK
R1505	1-216-022-00	RES-CHIP	75	5%	1/10W
R1506	1-216-033-00	RES-CHIP	220	5%	1/10W
R3200	1-216-121-11	RES-CHIP	1M	5%	1/10W
R3201	1-216-121-11	RES-CHIP	1M	5%	1/10W
R3202	1-216-097-11	RES-CHIP	100K	5%	1/10W
R3203	1-216-121-11	RES-CHIP	1M	5%	1/10W
R3204	1-216-061-00	RES-CHIP	3.3K	5%	1/10W
R3205	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R3206	1-216-039-00	RES-CHIP	390	5%	1/10W
R3207	1-216-073-00	RES-CHIP	10K	5%	1/10W
R3208	1-216-055-00	RES-CHIP	1.8K	5%	1/10W
R3209	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R3210	1-216-055-00	RES-CHIP	1.8K	5%	1/10W
R3211	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R3212	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R3213	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R3214	1-216-055-00	RES-CHIP	1.8K	5%	1/10W
R3215	1-216-095-00	RES-CHIP	82K	5%	1/10W
R3216	1-216-129-00	RES-CHIP	2.2M	5%	1/10W
R3217	1-216-085-00	RES-CHIP	33K	5%	1/10W
R3218	1-216-091-00	RES-CHIP	56K	5%	1/10W
R3219	1-216-073-00	RES-CHIP	10K	5%	1/10W
R3220	1-216-097-11	RES-CHIP	100K	5%	1/10W
R3221	1-216-073-00	RES-CHIP	10K	5%	1/10W
R3222	1-216-073-00	RES-CHIP	10K	5%	1/10W
R3223	1-216-045-00	RES-CHIP	680	5%	1/10W
R3224	1-216-101-00	RES-CHIP	150K	5%	1/10W
R3225	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R3226	1-216-095-00	RES-CHIP	82K	5%	1/10W
R3227	1-216-091-00	RES-CHIP	56K	5%	1/10W
R3228	1-216-085-00	RES-CHIP	33K	5%	1/10W
R3229	1-216-025-11	RES-CHIP	100	5%	1/10W
R3230	1-216-025-11	RES-CHIP	100	5%	1/10W
R3231	1-216-073-00	RES-CHIP	10K	5%	1/10W
R3232	1-216-073-00	RES-CHIP	10K	5%	1/10W
R3233	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R3234	1-216-039-00	RES-CHIP	390	5%	1/10W
R3235	1-216-101-00	RES-CHIP	150K	5%	1/10W
R3236	1-216-113-00	RES-CHIP	470K	5%	1/10W
R3237	1-216-045-00	RES-CHIP	680	5%	1/10W
R3238	1-216-073-00	RES-CHIP	10K	5%	1/10W
R3239	1-216-073-00	RES-CHIP	10K	5%	1/10W
R3240	1-216-081-00	RES-CHIP	22K	5%	1/10W
R3241	1-216-093-91	RES-CHIP	68K	5%	1/10W
R3242	1-216-081-00	RES-CHIP	22K	5%	1/10W
R3243	1-216-121-11	RES-CHIP	1M	5%	1/10W
R3244	1-216-121-11	RES-CHIP	1M	5%	1/10W
R3245	1-216-097-11	RES-CHIP	100K	5%	1/10W
R3246	1-216-045-00	RES-CHIP	680	5%	1/10W
R3247	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R3248	1-216-025-11	RES-CHIP	100	5%	1/10W
R3249	1-216-025-11	RES-CHIP	100	5%	1/10W
R3251	1-216-101-00	RES-CHIP	150K	5%	1/10W
R3252	1-216-113-00	RES-CHIP	470K	5%	1/10W
R3253	1-216-045-00	RES-CHIP	680	5%	1/10W
R3254	1-216-073-00	RES-CHIP	10K	5%	1/10W
R3255	1-216-121-11	RES-CHIP	1M	5%	1/10W
R3256	1-216-121-11	RES-CHIP	1M	5%	1/10W

REF. NO.	PART NO.	DESCRIPTION			REMARK
R3257	1-216-097-11	RES-CHIP	100K	5%	1/10W
R3258	1-216-121-11	RES-CHIP	1M	5%	1/10W
R3259	1-216-061-00	RES-CHIP	3.3K	5%	1/10W
R3262	1-216-101-00	RES-CHIP	150K	5%	1/10W
R3263	1-216-093-91	RES-CHIP	68K	5%	1/10W
R3267	1-216-049-11	RES-CHIP	1K	5%	1/10W
R3268	1-216-049-11	RES-CHIP	1K	5%	1/10W
R3269	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R3271	1-216-063-91	RES-CHIP	3.9K	5%	1/10W
R3273	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R3274	1-216-063-91	RES-CHIP	3.9K	5%	1/10W
R6201	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R6202	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R6203	1-216-295-11	SHORT	0		
R6209	1-216-049-11	RES-CHIP	1K	5%	1/10W
R6213	1-216-073-00	RES-CHIP	10K	5%	1/10W
R6214	1-216-073-00	RES-CHIP	10K	5%	1/10W
R6219	1-216-089-11	RES-CHIP	47K	5%	1/10W
R6220	1-163-009-11	CERAMIC CHIP	0.001UF	10.00%	50V
R6245	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R6246	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R6254	1-216-021-00	RES-CHIP	68	5%	1/10W
R6255	1-216-308-00	RES-CHIP	4.7	5%	1/10W
R6258	1-216-021-00	RES-CHIP	68	5%	1/10W
R6259	1-216-308-00	RES-CHIP	4.7	5%	1/10W

<TUNER>

TU1401 8-598-508-10 TUNER, FSS BTF-LG436(KV-XA29M84 ONLY)

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* A-1131-665-A B1 BOARD MOUNTED (KV-XA29M60 ONLY)
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<CAPACITOR>

C1513	1-163-038-11	CERAMIC CHIP	0.1UF		25V
C1514	1-163-038-11	CERAMIC CHIP	0.1UF		25V
C1515	1-163-243-11	CERAMIC CHIP	47PF	5.00%	50V
C1517	1-164-005-11	CERAMIC CHIP	0.47UF		25V
C1518	1-126-967-11	ELECT	47UF	20.00%	50V
C1519	1-163-249-11	CERAMIC CHIP	82PF	5.00%	50V
C1520	1-163-249-11	CERAMIC CHIP	82PF	5.00%	50V
C1522	1-164-005-11	CERAMIC CHIP	0.47UF		25V
C1523	1-163-255-11	CERAMIC CHIP	150PF	5.00%	50V
C1524	1-163-113-00	CERAMIC CHIP	68PF	5.00%	50V
C1525	1-163-249-11	CERAMIC CHIP	82PF	5.00%	50V
C1526	1-163-249-11	CERAMIC CHIP	82PF	5.00%	50V
C1528	1-164-005-11	CERAMIC CHIP	0.47UF		25V
C1529	1-163-255-11	CERAMIC CHIP	150PF	5.00%	50V
C1530	1-163-113-00	CERAMIC CHIP	68PF	5.00%	50V
C1543	1-126-933-11	ELECT	100UF	20.00%	16V
C1544	1-165-319-11	CERAMIC CHIP	0.1UF		50V
C1554	1-165-319-11	CERAMIC CHIP	0.1UF		50V
C1555	1-163-038-11	CERAMIC CHIP	0.1UF		25V
C1556	1-163-038-11	CERAMIC CHIP	0.1UF		25V

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B1 (KV-XA29M60 only) C6

REF. NO.	PART NO.	DESCRIPTION			REMARK
		<CONNECTOR>			
CN1501 *	1-564-511-11	PLUG, CONNECTOR 8P			
CN1502 *	1-564-508-11	PLUG, CONNECTOR 5P			
CN1503	1-764-811-11	CONNECTOR, BOARD TO BOARD 10P			
		<DIODE>			
D1501	8-719-158-35	RD9.1S-B			
		<IC>			
IC1502	8-759-439-64	HEF4053BT			
		<COIL>			
L1501	1-414-856-11	INDUCTOR	10UH		
L1506	1-414-857-11	INDUCTOR	100UH		
L1507	1-414-187-11	INDUCTOR	47UH		
L1508	1-414-187-11	INDUCTOR	47UH		
L1509	1-414-857-11	INDUCTOR	100UH		
L1510	1-414-187-11	INDUCTOR	47UH		
L1511	1-414-187-11	INDUCTOR	47UH		
		<TRANSISTOR>			
Q1501	8-729-230-49	2SC2712-YG			
Q1502	8-729-216-22	2SA1162-G			
Q1503	8-729-230-49	2SC2712-YG			
Q1504	8-729-230-49	2SC2712-YG			
Q1505	8-729-230-49	2SC2712-YG			
Q1506	8-729-230-49	2SC2712-YG			
Q1507	8-729-216-22	2SA1162-G			
Q1509	8-729-230-49	2SC2712-YG			
Q1510	8-729-230-49	2SC2712-YG			
Q1511	8-729-216-22	2SA1162-G			
Q1514	8-729-230-49	2SC2712-YG			
Q1515	8-729-230-49	2SC2712-YG			
Q1516	8-729-216-22	2SA1162-G			
Q1520	8-729-230-49	2SC2712-YG			
Q1522	8-729-230-49	2SC2712-YG			
Q1523	8-729-216-22	2SA1162-G			
		<RESISTOR>			
R1501	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1502	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1503	1-216-025-11	RES-CHIP	100	5%	1/10W
R1504	1-216-025-11	RES-CHIP	100	5%	1/10W
R1506	1-216-025-11	RES-CHIP	100	5%	1/10W
R1507	1-216-081-00	RES-CHIP	22K	5%	1/10W
R1508	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1511	1-216-033-00	RES-CHIP	220	5%	1/10W
R1512	1-216-005-00	RES-CHIP	15	5%	1/10W
R1515	1-216-041-00	RES-CHIP	470	5%	1/10W
R1516	1-216-025-11	RES-CHIP	100	5%	1/10W
R1517	1-216-075-00	RES-CHIP	12K	5%	1/10W

REF. NO.	PART NO.	DESCRIPTION			REMARK
R1520	1-216-079-00	RES-CHIP	18K	5%	1/10W
R1522	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1523	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1528	1-216-033-00	RES-CHIP	220	5%	1/10W
R1529	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R1531	1-216-045-00	RES-CHIP	680	5%	1/10W
R1537	1-216-041-00	RES-CHIP	470	5%	1/10W
R1538	1-216-041-00	RES-CHIP	470	5%	1/10W
R1540	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1541	1-216-041-00	RES-CHIP	470	5%	1/10W
R1542	1-216-041-00	RES-CHIP	470	5%	1/10W
R1543	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1545	1-216-041-00	RES-CHIP	470	5%	1/10W
R1547	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1548	1-216-025-11	RES-CHIP	100	5%	1/10W
R1549	1-216-075-00	RES-CHIP	12K	5%	1/10W
R1551	1-216-081-00	RES-CHIP	22K	5%	1/10W
R1552	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1553	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1554	1-216-033-00	RES-CHIP	220	5%	1/10W
R1556	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1559	1-216-041-00	RES-CHIP	470	5%	1/10W
R1560	1-216-041-00	RES-CHIP	470	5%	1/10W
R1561	1-216-041-00	RES-CHIP	470	5%	1/10W
R1562	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1563	1-216-041-00	RES-CHIP	470	5%	1/10W
R1566	1-216-041-00	RES-CHIP	470	5%	1/10W
R1567	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1568	1-216-041-00	RES-CHIP	470	5%	1/10W
R1569	1-216-049-11	RES-CHIP	1K	5%	1/10W

****

*	A-1332-138-A	C6 BOARD MOUNTED(KV-XA29M60)			
	A-1332-110-A	C6 BOARD MOUNTED(KV-XA29M84)			
		**********			
	4-352-844-01	PIN, LEAD, COATING			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
		<CAPACITOR>			
C701	1-162-114-00	CERAMIC	0.0047UF	2KV	
C702	1-102-074-00	CERAMIC	0.001UF	10.00% 50V	
C708	1-102-114-00	CERAMIC	470PF	10.00% 50V	
C709	1-102-114-00	CERAMIC	470PF	10.00% 50V	
C710	1-102-114-00	CERAMIC	470PF	10.00% 50V	
C712	1-102-115-00	CERAMIC	560PF	10.00% 50V	
C713	1-102-112-00	CERAMIC	330PF	10.00% 50V	
C714	1-102-112-00	CERAMIC	330PF	10.00% 50V	
C716	1-126-933-11	ELECT	100UF	20.00% 16V	
C717	1-107-651-11	ELECT	4.7UF	20.00% 250V	
C718	1-102-106-00	CERAMIC	100PF	10.00% 50V	
C1800	1-126-964-11	ELECT	10UF	20.00% 50V	
C1803	1-126-964-11	ELECT	10UF	20.00% 50V	
C1804	1-126-964-11	ELECT	10UF	20.00% 50V	
C1809	1-126-942-61	ELECT	1000UF	20.00% 25V	

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The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

C6

REF. NO.	PART NO.	DESCRIPTION		REMARK
C1810	1-102-106-00	CERAMIC	100PF	10.00% 50V
		<CONNECTOR>		
CN700	1-695-915-11	TAB (CONTACT)		
CN702	1-695-915-11	TAB (CONTACT)		
CN703 *	1-564-509-11	PLUG, CONNECTOR 6P		
CN704	1-695-915-11	TAB (CONTACT)		
CN712 *	1-564-507-11	PLUG, CONNECTOR 4P		
CN1801*	1-564-509-11	PLUG, CONNECTOR 6P		
CN1802*	1-564-506-11	PLUG, CONNECTOR 3P		
		<DIODE>		
D701	8-719-911-19	1SS119-25		
D702	8-719-911-19	1SS119-25		
D703	8-719-911-19	1SS119-25		
D704	8-719-911-19	1SS119-25		
D705	8-719-911-19	1SS119-25		
D706	8-719-911-19	1SS119-25		
D707	8-719-911-19	1SS119-25		
D708	8-719-911-19	1SS119-25		
D709	8-719-911-19	1SS119-25		
D710	8-719-911-19	1SS119-25		
D711	8-719-911-19	1SS119-25		
D712	8-719-911-19	1SS119-25		
D716	8-719-911-19	1SS119-25		
D717	8-719-070-16	NNCD9.1A-T1		
D1803	8-719-911-19	1SS119-25		
D1804	8-719-911-19	1SS119-25		
D1808	8-719-908-03	GP08D		
		<IC>		
IC1800	8-759-822-38	LA6510		
		<JACK>		
J701 ⚠	1-540-071-22	SOCKET, CRT		
		<COIL>		
L701	1-410-667-31	INDUCTOR	22UH	
L703	1-414-186-31	INDUCTOR	33UH	
L705	1-414-186-31	INDUCTOR	33UH	
L707	1-414-187-11	INDUCTOR	47UH	
		<TRANSISTOR>		
Q701	8-729-326-11	2SC2611		
Q702	8-729-326-11	2SC2611		
Q703	8-729-326-11	2SC2611		
Q704	8-729-326-11	2SC2611		
Q705	8-729-326-11	2SC2611		
Q706	8-729-326-11	2SC2611		
Q707	8-729-200-17	2SA1091-O		
Q708	8-729-200-17	2SA1091-O		
Q709	8-729-200-17	2SA1091-O		
Q710	8-729-119-78	2SC2785-HFE		
Q711	8-729-119-78	2SC2785-HFE		
Q712	8-729-119-78	2SC2785-HFE		
Q714	8-729-255-12	2SC2551-O		
Q1800	8-729-119-76	2SA1175-HFE		
Q1802	8-729-119-78	2SC2785-HFE		
		<RESISTOR>		
R701	1-249-496-11	CARBON	100K	5% 1/2W
R705	1-216-392-11	METAL OXIDE	1.8	5% 3W
R710	1-215-923-00	METAL OXIDE	10K	5% 3W
R711	1-260-328-11	CARBON	1K	5% 1/2W
R712	1-215-923-00	METAL OXIDE	10K	5% 3W
R713	1-260-330-11	CARBON	1.5K	5% 1/2W
R714	1-215-923-00	METAL OXIDE	10K	5% 3W
R715	1-260-330-11	CARBON	1.5K	5% 1/2W
R716	1-249-899-11	CARBON (KV-XA29M60 ONLY)	100	5% 1/4W
R716	1-249-405-11	CARBON (KV-XA29M84 ONLY)	100	5% 1/4W
R717	1-249-899-11	CARBON (KV-XA29M60 ONLY)	100	5% 1/4W
R717	1-249-405-11	CARBON (KV-XA29M84 ONLY)	100	5% 1/4W
R718	1-249-899-11	CARBON (KV-XA29M60 ONLY)	100	5% 1/4W
R718	1-249-405-11	CARBON (KV-XA29M84 ONLY)	100	5% 1/4W
R719	1-215-469-00	METAL	100K	1% 1/4W
R720	1-249-923-11	CARBON	1K	5% 1/4W
R722	1-249-923-11	CARBON	1K	5% 1/4W
R723	1-215-469-00	METAL	100K	1% 1/4W
R724	1-249-923-11	CARBON	1K	5% 1/4W
R725	1-249-424-11	CARBON	3.9K	5% 1/4W
R726	1-249-424-11	CARBON	3.9K	5% 1/4W
R727	1-249-424-11	CARBON	3.9K	5% 1/4W
R728	1-249-408-11	CARBON	180	5% 1/4W
R729	1-249-408-11	CARBON	180	5% 1/4W
R730	1-249-408-11	CARBON	180	5% 1/4W
R731	1-249-401-11	CARBON	47	5% 1/4W
R732	1-249-401-11	CARBON	47	5% 1/4W
R733	1-249-401-11	CARBON	47	5% 1/4W
R734	1-247-739-11	CARBON	100	5% 1/2W
R738	1-247-807-31	CARBON	100	5% 1/4W
R739	1-247-807-31	CARBON	100	5% 1/4W
R740	1-247-807-31	CARBON	100	5% 1/4W
R747	1-215-926-00	METAL OXIDE	33K	5% 3W
R749	1-215-927-00	METAL OXIDE	47K	5% 3W
R751	1-215-926-00	METAL OXIDE	33K	5% 3W
R753	1-249-429-11	CARBON	10K	5% 1/4W
R755	1-249-427-11	CARBON	6.8K	5% 1/4W
R756	1-249-427-11	CARBON	6.8K	5% 1/4W
R757	1-249-427-11	CARBON	6.8K	5% 1/4W
R758	1-249-419-11	CARBON	1.5K	5% 1/4W
R759	1-249-419-11	CARBON	1.5K	5% 1/4W
R760	1-249-419-11	CARBON	1.5K	5% 1/4W

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C6 D3

REF. NO.	PART NO.	DESCRIPTION			REMARK
R1800	1-249-417-11	CARBON	1K	5%	1/4W
R1801	1-249-426-11	CARBON	5.6K	5%	1/4W
R1802	1-249-382-11	CARBON	1.2	5%	1/4W
R1803	1-249-382-11	CARBON	1.2	5%	1/4W
R1805	1-249-429-11	CARBON	10K	5%	1/4W
R1806	1-249-425-11	CARBON	4.7K	5%	1/4W
R1808	1-249-425-11	CARBON	4.7K	5%	1/4W
R1809	1-249-435-11	CARBON	33K	5%	1/4W
R1810	1-249-435-11	CARBON	33K	5%	1/4W
R1811	1-249-433-11	CARBON	22K	5%	1/4W
R1812	1-249-435-11	CARBON	33K	5%	1/4W
R1821	1-249-433-11	CARBON	22K	5%	1/4W
R1822	1-249-435-11	CARBON	33K	5%	1/4W
R1823	1-249-426-11	CARBON	5.6K	5%	1/4W
R1824	1-249-435-11	CARBON	33K	5%	1/4W
R1825	1-247-843-11	CARBON	3.3K	5%	1/4W
		<VARIABLE RESISTOR>			
RV702	1-241-656-11	RES, ADJ, METAL FILM 110M			
RV1801	1-238-019-11	RES, ADJ, CARBON 47K			

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*	A-1333-008-A	D3 BOARD MOUNTED(KV-XA29M60 ONLY)			
	A-1343-946-A	D3 BOARD MOUNTED(KV-XA29M84 ONLY)			
		**********			
		<CAPACITOR>			
C2800	1-104-664-11	ELECT	47UF	20.00%	25V
C2801	1-106-220-00	MYLAR	0.1UF	10.00%	100V
C2802	1-136-155-00	FILM	0.015UF	5.00%	50V
C2803	1-129-723-00	FILM	0.056UF	5.00%	630V
C2805	1-104-664-11	ELECT	47UF	20.00%	25V
C2806	1-106-383-00	MYLAR	0.047UF	5.00%	100V
C2807	1-137-194-81	FILM	0.47UF	5.00%	50V
C2808	1-126-964-11	ELECT	10UF	20.00%	50V
C2809	1-137-194-81	FILM	0.47UF	5.00%	50V
C2810	1-106-375-12	MYLAR	0.022UF	10.00%	250V
C2811	1-126-964-11	ELECT	10UF	20.00%	50V
C2812	1-126-964-11	ELECT	10UF	20.00%	50V
C2813	1-129-708-61	FILM	0.0033UF	5.00%	630V
		<CONNECTOR>			
CN2800	* 1-564-510-11	PLUG, CONNECTOR 7P			
CN2802	* 1-564-506-11	PLUG, CONNECTOR 3P			
CN2803	1-695-915-11	TAB (CONTACT)			

REF. NO.	PART NO.	DESCRIPTION			REMARK
		<DIODE>			
D2800	8-719-302-43	EL1Z			
D2801	8-719-911-19	1SS119-25			
D2802	8-719-911-19	1SS119-25			
D2803	8-719-911-19	1SS119-25			
		<IC>			
IC2800	8-759-701-59	NJM78M09FA			
IC2801	8-759-998-98	LM358D			
		<COIL>			
L2800	1-406-989-21	INDUCTOR	10MH		
L2802	1-406-987-11	INDUCTOR	4.7MH		
L2803	1-406-986-11	INDUCTOR	3.3MH		
L2804	1-406-678-11	INDUCTOR	15MH		
		<TRANSISTOR>			
Q2800	8-729-119-78	2SC2785-HFE			
Q2801	8-729-195-82	2SC2958			
Q2802	8-729-017-06	2SC4793			
Q2803	8-729-216-22	2SA1162-G			
Q2804	8-729-230-49	2SC2712-YG			
		<RESISTOR>			
R2800	1-249-405-11	CARBON	100	5%	1/4W
R2802	1-260-111-11	CARBON	10K	5%	1/2W
R2803	1-260-111-11	CARBON	10K	5%	1/2W
R2804	1-216-061-00	RES-CHIP	3.3K	5%	1/10W
R2805	1-216-097-11	RES-CHIP	100K	5%	1/10W
R2806	1-249-421-11	CARBON	2.2K	5%	1/4W
R2807	1-249-420-11	CARBON	1.8K	5%	1/4W
R2808	1-215-857-11	METAL OXIDE	10	5%	1W
R2809	1-216-059-00	RES-CHIP	2.7K	5%	1/10W
R2810	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2811	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R2812	1-216-081-00	RES-CHIP	22K	5%	1/10W
R2813	1-216-059-00	RES-CHIP	2.7K	5%	1/10W
R2814	1-216-121-11	RES-CHIP	1M	5%	1/10W
R2815	1-216-085-00	RES-CHIP	33K	5%	1/10W
R2816	1-216-107-00	RES-CHIP	270K	5%	1/10W
R2817	1-216-107-00	RES-CHIP	270K	5%	1/10W
		<TRANSFORMER>			
T2800	1-413-059-00	TRANSFORMER, FERRITE (DFT)			

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The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

F H

REF. NO.	PART NO.	DESCRIPTION			REMARK
*	A-1241-447-A	F BOARD MOUNTED(KV-XA29M60)			
	A-1241-443-A	F BOARD MOUNTED(KV-XA29M84)			
		**********			
	1-533-223-11	CLIP, FUSE			
	4-044-778-11	COVER, CAP TYPE CONDENSER (KV-XA29M60 ONLY)			
*	4-374-846-01	COVER, CAPACITOR, CAP TYPE (KV-XA29M84)			
		<CAPACITOR>			
C654	1-117-703-11	CERAMIC	0.0047UF	99% 250V	
C4601 ⚠	1-104-708-11	MYLAR	0.47UF	20.00% 250V	
C4602 ⚠	1-109-835-11	MYLAR	0.68UF	20.00% 250V	
		<CONNECTOR>			
CN4601 *	1-580-843-11	PIN, CONNECTOR (POWER)			
CN4602 *	1-580-843-11	PIN, CONNECTOR (POWER)			
CN4603	1-695-915-11	TAB (CONTACT)			
		<FUSE>			
F4601 ⚠	1-532-299-00	FUSE, TIME-LAG 5A/250V			
		<RESISTOR>			
R4601 ⚠	1-202-719-00	SOLID	1M	10% 1/2W	
		<TRANSFORMER>			
T4601	1-424-505-11	TRANSFORMER, LINE FILTER			
T4602	1-431-182-11	TRANSFORMER, LINE FILTER			
		<VARISTOR>			
VDR461	1-803-830-31	VARISTOR (ERZV14D621)			
**********					
*	A-1372-912-A	H BOARD MOUNTED (KV-XA29M60)			
*	A-1372-887-A	H BOARD MOUNTED (KV-XA29M84)			
		**********			
*	4-055-304-11	HOLDER, LED			
		<CAPACITOR>			
C3900	1-136-153-00	FILM	0.01UF	5.00% 50V	
C3902	1-136-153-00	FILM	0.01UF	5.00% 50V	
C3904	1-104-664-11	ELECT	47UF	20.00% 25V	
C3905	1-126-963-11	ELECT	4.7UF	20.00% 50V	
C3906	1-126-963-11	ELECT	4.7UF	20.00% 50V	
C3910	1-104-664-11	ELECT	47UF	20.00% 16V	
C3911	1-104-664-11	ELECT	47UF	20.00% 16V	
C3912	1-102-114-00	CERAMIC	470PF	10.00% 50V	
C3913	1-126-960-11	ELECT	1UF	20.00% 50V	

REF. NO.	PART NO.	DESCRIPTION			REMARK
		<CONNECTOR>			
CN3601 *	1-580-844-11	PIN, CONNECTOR (POWER)			
CN3602 *	1-580-844-11	PIN, CONNECTOR (POWER)			
CN3901 *	1-564-507-11	PLUG, CONNECTOR 4P			
CN3902 *	1-564-509-11	PLUG, CONNECTOR 6P			
CN3904 *	1-564-512-11	PLUG, CONNECTOR 9P			
CN3905 *	1-564-512-11	PLUG, CONNECTOR 9P			
		<DIODE>			
D3900	8-719-070-16	NNCD9.1A-T1			
D3901	8-719-070-16	NNCD9.1A-T1			
D3905	8-719-070-16	NNCD9.1A-T1			
D3906	8-719-045-19	SPB-26MVWF			
D3907	8-719-070-16	NNCD9.1A-T1			
D3908	8-719-070-16	NNCD9.1A-T1			
		<IC>			
IC3901	8-759-180-30	SBX3081-01(30)			
		<JACK>			
J3901	1-750-264-11	JACK			
J3902	1-784-646-11	TERMINAL, S			
J3903	1-770-329-11	JACK, PIN 3P			
		<COIL>			
L3901	1-414-183-41	INDUCTOR	10UH		
L3902	1-414-183-41	INDUCTOR	10UH		
		<TRANSISTOR>			
Q3901	8-729-030-02	DTC144ESA			
Q3902	8-729-030-02	DTC144ESA			
		<RESISTOR>			
R3900	1-249-411-11	CARBON	330	5% 1/4W	
R3901	1-249-411-11	CARBON	330	5% 1/4W	
R3902	1-247-804-11	CARBON	75	5% 1/4W	
R3904	1-249-429-11	CARBON	10K	5% 1/4W	
R3905	1-249-429-11	CARBON	10K	5% 1/4W	
R3907	1-249-426-11	CARBON	5.6K	5% 1/4W	
R3908	1-249-413-11	CARBON	470	5% 1/4W	
R3909	1-249-417-11	CARBON	1K	5% 1/4W	
R3910	1-249-420-11	CARBON	1.8K	5% 1/4W	
R3911	1-249-411-11	CARBON	330	5% 1/4W	
R3912	1-247-843-11	CARBON	3.3K	5% 1/4W	
R3913	1-249-429-11	CARBON	10K	5% 1/4W	
R3914	1-249-411-11	CARBON	330	5% 1/4W	
R3915	1-249-429-11	CARBON	10K	5% 1/4W	
R3916	1-249-401-11	CARBON	47	5% 1/4W	
R3917	1-247-804-11	CARBON	75	5% 1/4W	
R3918	1-249-409-11	CARBON	220	5% 1/4W	
R3919	1-249-409-11	CARBON	220	5% 1/4W	

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H J P2 (KV-XA29M84 only)

REF. NO.	PART NO.	DESCRIPTION			REMARK
R3920	1-247-807-31	CARBON	100	5%	1/4W
R3921	1-247-807-31	CARBON	100	5%	1/4W
R3922	1-249-421-11	CARBON	2.2K	5%	1/4W
		<SWITCH>			
S3901	1-571-433-21	SWITCH, PUSH (AC POWER)			
S3902	1-692-431-21	SWITCH, TACTILE			
S3903	1-692-431-21	SWITCH, TACTILE			
S3904	1-692-431-21	SWITCH, TACTILE			
S3905	1-692-431-21	SWITCH, TACTILE			
S3906	1-692-431-21	SWITCH, TACTILE			
S3907	1-692-431-21	SWITCH, TACTILE			
S3908	1-692-431-21	SWITCH, TACTILE			
**********					
*	A-1388-296-A	J BOARD MOUNTED(KV-XA29M60)			
*	A-1388-288-A	J BOARD MOUNTED (KV-XA29M84)			
		**********			
		<CAPACITOR>			
C2410	1-126-967-11	ELECT	47UF	20.00% 50V	
C2411	1-126-967-11	ELECT	47UF	20.00% 50V	
C2412	1-126-967-11	ELECT	47UF	20.00% 50V	
C2413	1-102-112-00	CERAMIC	330PF	10.00% 50V	
C2414	1-102-112-00	CERAMIC	330PF	10.00% 50V	
C2418	1-126-960-11	ELECT	1UF	20.00% 50V	
C2419	1-126-960-11	ELECT	1UF	20.00% 50V	
		<CONNECTOR>			
CN2410	* 1-564-523-11	PLUG, CONNECTOR 8P			
		<DIODE>			
D2410	8-719-070-16	NNCD9.1A-T1			
D2411	8-719-070-16	NNCD9.1A-T1			
D2412	8-719-070-16	NNCD9.1A-T1			
D2414	8-719-070-16	NNCD9.1A-T1			
D2415	8-719-070-16	NNCD9.1A-T1			
		<JACK>			
J2410	1-784-623-11	BLOCK, PIN JACK 5P			
		<RESISTOR>			
R2410	1-247-804-11	CARBON	75	5%	1/4W
R2411	1-247-804-11	CARBON	75	5%	1/4W
R2412	1-247-804-11	CARBON	75	5%	1/4W
R2414	1-247-887-00	CARBON	220K	5%	1/4W
R2415	1-247-807-31	CARBON	100	5%	1/4W

REF. NO.	PART NO.	DESCRIPTION			REMARK
R2417	1-247-887-00	CARBON	220K	5%	1/4W
R2418	1-247-807-31	CARBON	100	5%	1/4W
R2419	1-249-409-11	CARBON	220	5%	1/4W
R2420	1-249-409-11	CARBON	220	5%	1/4W
R2421	1-249-409-11	CARBON	220	5%	1/4W
**********					
*	A-1190-376-A	P2 BOARD MOUNTED (KV-XA29M84 ONLY)			
		**********			
		<CAPACITOR>			
C4300	1-164-346-11	CERAMIC CHIP	1UF	16V	
C4301	1-163-038-11	CERAMIC CHIP	0.1UF	25V	
C4302	1-163-031-11	CERAMIC CHIP	0.01UF	50V	
C4303	1-126-960-11	ELECT	1UF	20.00% 50V	
C4304	1-163-038-11	CERAMIC CHIP	0.1UF	25V	
C4312	1-104-664-11	ELECT	47UF	20.00% 16V	
C4314	1-126-964-11	ELECT	10UF	20.00% 50V	
C4315	1-126-934-11	ELECT	220UF	20.00% 16V	
C4317	1-104-664-11	ELECT	47UF	20.00% 16V	
C4318	1-163-038-11	CERAMIC CHIP	0.1UF	25V	
C4319	1-163-233-11	CERAMIC CHIP	18PF	5.00% 50V	
C4320	1-163-233-11	CERAMIC CHIP	18PF	5.00% 50V	
C4321	1-163-038-11	CERAMIC CHIP	0.1UF	25V	
C4322	1-126-957-11	ELECT	0.22UF	20.00% 50V	
C4323	1-163-259-91	CERAMIC CHIP	220PF	5.00% 50V	
C4324	1-126-963-11	ELECT	4.7UF	20.00% 50V	
C4325	1-104-664-11	ELECT	47UF	20.00% 16V	
C4326	1-163-038-11	CERAMIC CHIP	0.1UF	25V	
C4327	1-164-005-11	CERAMIC CHIP	0.47UF	25V	
C4329	1-163-038-11	CERAMIC CHIP	0.1UF	25V	
C4330	1-126-963-11	ELECT	4.7UF	20.00% 50V	
C4331	1-126-964-11	ELECT	10UF	20.00% 50V	
C4332	1-164-004-11	CERAMIC CHIP	0.1UF	10.00% 25V	
C4333	1-163-038-11	CERAMIC CHIP	0.1UF	25V	
C4334	1-126-960-11	ELECT	1UF	20.00% 50V	
C4335	1-163-017-00	CERAMIC CHIP	0.0047UF	10.00% 50V	
C4336	1-164-004-11	CERAMIC CHIP	0.1UF	10.00% 25V	
C4337	1-164-346-11	CERAMIC CHIP	1UF	16V	
C4338	1-164-346-11	CERAMIC CHIP	1UF	16V	
C4339	1-164-346-11	CERAMIC CHIP	1UF	16V	
C4340	1-163-038-11	CERAMIC CHIP	0.1UF	25V	
C4341	1-104-665-11	ELECT	100UF	20.00% 10V	
C4347	1-104-665-11	ELECT	100UF	20.00% 10V	
C4348	1-163-038-11	CERAMIC CHIP	0.1UF	25V	
C4349	1-163-251-11	CERAMIC CHIP	100PF	5.00% 50V	
C4350	1-126-964-11	ELECT	10UF	20.00% 50V	
C4352	1-163-251-11	CERAMIC CHIP	100PF	5.00% 50V	
C4353	1-104-665-11	ELECT	100UF	20.00% 10V	
C4355	1-163-038-11	CERAMIC CHIP	0.1UF	25V	
C4356	1-164-346-11	CERAMIC CHIP	1UF	16V	
C4357	1-163-038-11	CERAMIC CHIP	0.1UF	25V	
C4359	1-163-038-11	CERAMIC CHIP	0.1UF	25V	
C4362	1-163-235-11	CERAMIC CHIP	22PF	5.00% 50V	

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P2 (KV-XA29M84 only)

REF. NO.	PART NO.	DESCRIPTION			REMARK
C4363	1-163-237-11	CERAMIC CHIP	27PF	5.00% 50V	
C4364	1-104-665-11	ELECT	100UF	20.00% 10V	
C4365	1-163-038-11	CERAMIC CHIP	0.1UF	25V	
C4366	1-163-031-11	CERAMIC CHIP	0.01UF	50V	
C4367	1-126-960-11	ELECT	1UF	20.00% 50V	
C4371	1-164-004-11	CERAMIC CHIP	0.1UF	10.00% 25V	
C4372	1-163-249-11	CERAMIC CHIP	82PF	5.00% 50V	
C4377	1-104-665-11	ELECT	100UF	20.00% 10V	
C4380	1-163-038-11	CERAMIC CHIP	0.1UF	25V	
C4394	1-104-664-11	ELECT	47UF	20.00% 16V	
C4396	1-163-249-11	CERAMIC CHIP	82PF	5.00% 50V	
C4397	1-163-249-11	CERAMIC CHIP	82PF	5.00% 50V	
C4398	1-126-964-11	ELECT	10UF	20.00% 50V	
C4399	1-126-964-11	ELECT	10UF	20.00% 50V	
C4554	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
C4613	1-163-038-11	CERAMIC CHIP	0.1UF	25V	
C4614	1-163-038-11	CERAMIC CHIP	0.1UF	25V	
C4615	1-163-243-11	CERAMIC CHIP	47PF	5.00% 50V	
C4617	1-164-005-11	CERAMIC CHIP	0.47UF	25V	
C4618	1-126-967-11	ELECT	47UF	20.00% 50V	
C4619	1-163-249-11	CERAMIC CHIP	82PF	5.00% 50V	
C4620	1-163-249-11	CERAMIC CHIP	82PF	5.00% 50V	
C4622	1-164-005-11	CERAMIC CHIP	0.47UF	25V	
C4623	1-163-255-11	CERAMIC CHIP	150PF	5.00% 50V	
C4624	1-163-113-00	CERAMIC CHIP	68PF	5.00% 50V	
C4625	1-163-249-11	CERAMIC CHIP	82PF	5.00% 50V	
C4626	1-163-249-11	CERAMIC CHIP	82PF	5.00% 50V	
C4628	1-164-005-11	CERAMIC CHIP	0.47UF	25V	
C4629	1-163-255-11	CERAMIC CHIP	150PF	5.00% 50V	
C4630	1-163-113-00	CERAMIC CHIP	68PF	5.00% 50V	
C4643	1-126-933-11	ELECT	100UF	20.00% 16V	
C4644	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
		<CONNECTOR>			
CN4301	1-764-811-11	CONNECTOR, BOARD TO BOARD 10P			
CN4302	1-764-811-11	CONNECTOR, BOARD TO BOARD 10P			
CN4501*	1-564-511-11	PLUG, CONNECTOR 8P			
CN4502*	1-564-508-11	PLUG, CONNECTOR 5P			
		<DIODE>			
D4501	8-719-158-35	RD9.1S-B			
		<FERRITE BEAD>			
FB4301	1-410-397-21	FERRITE	1.1UH		
		<FILTER>			
FL4301	1-236-728-41	ENCAPSULATED COMPONENT			
		<IC>			
IC4301	8-759-655-57	SDA9288XE-B0121			
IC4302	8-759-568-62	BA7606F-E2			
IC4303	8-752-090-41	CXA2139S			
IC4502	8-759-439-64	HEF4053BT			
IC4503	8-759-439-64	HEF4053BT			
		<CHIP CONDUCTOR>			
JR4300	1-216-295-11	SHORT	0		
JR4301	1-216-295-11	SHORT	0		
JR4305	1-216-295-11	SHORT	0		
JR4500	1-216-295-11	SHORT	0		
JR4502	1-216-295-11	SHORT	0		
JR4503	1-216-295-11	SHORT	0		
JR4505	1-216-295-11	SHORT	0		
		<COIL>			
L4302	1-412-537-31	INDUCTOR	100UH		
L4304	1-408-603-31	INDUCTOR	10UH		
L4305	1-408-603-31	INDUCTOR	10UH		
L4306	1-408-603-31	INDUCTOR	10UH		
L4307	1-408-412-00	INDUCTOR	18UH		
L4308	1-408-611-31	INDUCTOR	47UH		
L4309	1-408-603-31	INDUCTOR	10UH		
L4310	1-408-611-31	INDUCTOR	47UH		
L4311	1-408-603-31	INDUCTOR	10UH		
L4312	1-408-603-31	INDUCTOR	10UH		
L4315	1-414-856-11	INDUCTOR	10UH		
L4316	1-414-856-11	INDUCTOR	10UH		
L4317	1-414-856-11	INDUCTOR	10UH		
L4501	1-414-856-11	INDUCTOR	10UH		
L4506	1-414-857-11	INDUCTOR	100UH		
L4507	1-414-187-11	INDUCTOR	47UH		
L4508	1-414-187-11	INDUCTOR	47UH		
L4509	1-414-857-11	INDUCTOR	100UH		
L4510	1-414-187-11	INDUCTOR	47UH		
L4511	1-414-187-11	INDUCTOR	47UH		
		<TRANSISTOR>			
Q4301	8-729-230-49	2SC2712-YG			
Q4302	8-729-216-22	2SA1162-G			
Q4303	8-729-424-59	UN2212			
Q4304	8-729-027-43	DTC114EKA-T146			
Q4305	8-729-027-43	DTC114EKA-T146			
Q4306	8-729-230-49	2SC2712-YG			
Q4307	8-729-027-43	DTC114EKA-T146			
Q4313	8-729-216-22	2SA1162-G			
Q4314	8-729-216-22	2SA1162-G			
Q4315	8-729-216-22	2SA1162-G			
Q4327	8-729-216-22	2SA1162-G			
Q4329	8-729-230-49	2SC2712-YG			
Q4362	8-729-216-22	2SA1162-G			
Q4363	8-729-216-22	2SA1162-G			
Q4364	8-729-216-22	2SA1162-G			
Q4365	8-729-230-49	2SC2712-YG			
Q4366	8-729-230-49	2SC2712-YG			
Q4368	8-729-230-49	2SC2712-YG			
Q4369	8-729-230-49	2SC2712-YG			
Q4371	8-729-230-49	2SC2712-YG			

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P2 (KV-XA29M84 only)

REF. NO.	PART NO.	DESCRIPTION			REMARK
Q4375	8-729-230-49	2SC2712-YG			
Q4501	8-729-230-49	2SC2712-YG			
Q4502	8-729-216-22	2SA1162-G			
Q4503	8-729-230-49	2SC2712-YG			
Q4505	8-729-230-49	2SC2712-YG			
Q4507	8-729-216-22	2SA1162-G			
Q4509	8-729-230-49	2SC2712-YG			
Q4510	8-729-230-49	2SC2712-YG			
Q4511	8-729-216-22	2SA1162-G			
Q4514	8-729-230-49	2SC2712-YG			
Q4515	8-729-230-49	2SC2712-YG			
Q4516	8-729-216-22	2SA1162-G			
Q4520	8-729-230-49	2SC2712-YG			
Q4522	8-729-230-49	2SC2712-YG			
Q4523	8-729-216-22	2SA1162-G			
		<RESISTOR>			
R4300	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R4301	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R4302	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R4304	1-216-089-11	RES-CHIP	47K	5%	1/10W
R4305	1-216-025-11	RES-CHIP	100	5%	1/10W
R4306	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R4307	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R4308	1-216-081-00	RES-CHIP	22K	5%	1/10W
R4309	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R4310	1-164-346-11	CERAMIC CHIP	1UF		16V
R4311	1-216-025-11	RES-CHIP	100	5%	1/10W
R4312	1-216-025-11	RES-CHIP	100	5%	1/10W
R4313	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4314	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4315	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4316	1-216-025-11	RES-CHIP	100	5%	1/10W
R4317	1-216-025-11	RES-CHIP	100	5%	1/10W
R4319	1-216-045-00	RES-CHIP	680	5%	1/10W
R4320	1-216-081-00	RES-CHIP	22K	5%	1/10W
R4321	1-216-045-00	RES-CHIP	680	5%	1/10W
R4326	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R4327	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R4328	1-216-063-91	RES-CHIP	3.9K	5%	1/10W
R4330	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R4332	1-216-089-11	RES-CHIP	47K	5%	1/10W
R4333	1-216-025-11	RES-CHIP	100	5%	1/10W
R4334	1-216-025-11	RES-CHIP	100	5%	1/10W
R4335	1-216-025-11	RES-CHIP	100	5%	1/10W
R4336	1-216-041-00	RES-CHIP	470	5%	1/10W
R4337	1-216-041-00	RES-CHIP	470	5%	1/10W
R4338	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4339	1-216-041-00	RES-CHIP	470	5%	1/10W
R4340	1-216-085-00	RES-CHIP	33K	5%	1/10W
R4341	1-216-081-00	RES-CHIP	22K	5%	1/10W
R4344	1-216-295-11	SHORT	0		
R4345	1-216-295-11	SHORT	0		
R4346	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4347	1-216-295-11	SHORT	0		
R4348	1-216-085-00	RES-CHIP	33K	5%	1/10W
R4349	1-216-025-11	RES-CHIP	100	5%	1/10W

REF. NO.	PART NO.	DESCRIPTION			REMARK
R4350	1-216-085-00	RES-CHIP	33K	5%	1/10W
R4351	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4352	1-216-041-00	RES-CHIP	470	5%	1/10W
R4353	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4354	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4355	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4356	1-208-778-11	METAL CHIP	680	0.5%	1/10W
R4358	1-208-776-11	METAL CHIP	560	0.5%	1/10W
R4376	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R4377	1-216-047-91	RES-CHIP	820	5%	1/10W
R4378	1-216-047-91	RES-CHIP	820	5%	1/10W
R4379	1-208-780-11	METAL CHIP	820	0.5%	1/10W
R4380	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R4382	1-216-025-11	RES-CHIP	100	5%	1/10W
R4383	1-208-806-11	METAL CHIP	10K	0.5%	1/10W
R4384	1-216-079-00	RES-CHIP	18K	5%	1/10W
R4385	1-216-073-00	RES-CHIP	10K	5%	1/10W
R4386	1-216-073-00	RES-CHIP	10K	5%	1/10W
R4387	1-216-073-00	RES-CHIP	10K	5%	1/10W
R4388	1-216-025-11	RES-CHIP	100	5%	1/10W
R4389	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R4390	1-216-025-11	RES-CHIP	100	5%	1/10W
R4391	1-216-025-11	RES-CHIP	100	5%	1/10W
R4392	1-216-073-00	RES-CHIP	10K	5%	1/10W
R4393	1-216-025-11	RES-CHIP	100	5%	1/10W
R4394	1-216-075-00	RES-CHIP	12K	5%	1/10W
R4395	1-216-025-11	RES-CHIP	100	5%	1/10W
R4396	1-216-081-00	RES-CHIP	22K	5%	1/10W
R4398	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R4401	1-216-295-11	SHORT	0		
R4403	1-216-025-11	RES-CHIP	100	5%	1/10W
R4408	1-216-041-00	RES-CHIP	470	5%	1/10W
R4414	1-216-025-11	RES-CHIP	100	5%	1/10W
R4416	1-216-041-00	RES-CHIP	470	5%	1/10W
R4417	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4434	1-216-045-00	RES-CHIP	680	5%	1/10W
R4435	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R4506	1-216-025-11	RES-CHIP	100	5%	1/10W
R4507	1-216-081-00	RES-CHIP	22K	5%	1/10W
R4508	1-216-073-00	RES-CHIP	10K	5%	1/10W
R4511	1-216-033-00	RES-CHIP	220	5%	1/10W
R4512	1-216-005-00	RES-CHIP	15	5%	1/10W
R4515	1-216-041-00	RES-CHIP	470	5%	1/10W
R4516	1-216-025-11	RES-CHIP	100	5%	1/10W
R4517	1-216-075-00	RES-CHIP	12K	5%	1/10W
R4520	1-216-079-00	RES-CHIP	18K	5%	1/10W
R4522	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4523	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4528	1-216-033-00	RES-CHIP	220	5%	1/10W
R4529	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R4531	1-216-045-00	RES-CHIP	680	5%	1/10W
R4537	1-216-041-00	RES-CHIP	470	5%	1/10W
R4538	1-216-041-00	RES-CHIP	470	5%	1/10W
R4540	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4541	1-216-041-00	RES-CHIP	470	5%	1/10W
R4542	1-216-041-00	RES-CHIP	470	5%	1/10W
R4543	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4545	1-216-041-00	RES-CHIP	470	5%	1/10W

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P2 (KV-XA29M84 only) VM1

REF. NO.	PART NO.	DESCRIPTION			REMARK
R4547	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4548	1-216-025-11	RES-CHIP	100	5%	1/10W
R4549	1-216-075-00	RES-CHIP	12K	5%	1/10W
R4551	1-216-081-00	RES-CHIP	22K	5%	1/10W
R4552	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4553	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4554	1-216-033-00	RES-CHIP	220	5%	1/10W
R4556	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4559	1-216-041-00	RES-CHIP	470	5%	1/10W
R4560	1-216-041-00	RES-CHIP	470	5%	1/10W
R4561	1-216-041-00	RES-CHIP	470	5%	1/10W
R4562	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4563	1-216-041-00	RES-CHIP	470	5%	1/10W
R4566	1-216-041-00	RES-CHIP	470	5%	1/10W
R4567	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4568	1-216-041-00	RES-CHIP	470	5%	1/10W
R4569	1-216-049-11	RES-CHIP	1K	5%	1/10W
		<CRYSTAL>			
X4301	1-781-134-21	VIBRATOR, CRYSTAL			
X4302	1-781-132-21	VIBRATOR, CRYSTAL			
X4303	1-760-095-21	VIBRATOR, CRYSTAL			

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*	A-1342-587-A	VM1 BOARD MOUNTED(KV-XA29M60)			
*	A-1342-580-A	VM1 BOARD MOUNTED (KV-XA29M84)			
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	4-382-854-11	SCREW (M3X10), P, SW (+)			
		<CAPACITOR>			
C5900	1-102-115-00	CERAMIC	560PF	10.00%	50V
C5902	1-104-661-91	ELECT	330UF	20.00%	16V
C5903	1-161-830-00	CERAMIC	0.0047UF		500V
C5905	1-126-935-11	ELECT	470UF	20.00%	10V
C5906	1-130-491-00	MYLAR	0.047UF	5.00%	50V
C5907	1-107-638-11	ELECT	33UF	20.00%	160V
C5908	1-106-383-00	MYLAR	0.047UF	10.00%	200V
C5909	1-126-933-11	ELECT	100UF	20.00%	16V
C5910	1-130-471-00	MYLAR	0.001UF	5.00%	50V
C5911	1-107-949-11	ELECT	2.2UF	20.00%	160V
C5912	1-104-999-11	MYLAR	0.1UF	10.00%	200V
C5913	1-130-471-00	MYLAR	0.001UF	5.00%	50V
C5914	1-126-933-11	ELECT	100UF	20.00%	16V
C5916	1-130-491-00	MYLAR	0.047UF	5.00%	50V
C5917	1-126-935-11	ELECT	470UF	20.00%	10V
C5918	1-102-244-00	CERAMIC	220PF	10.00%	500V
C5919	1-136-165-00	FILM	0.1UF	5.00%	50V
		<CONNECTOR>			
CN2801	* 1-564-506-11	PLUG, CONNECTOR 3P			
CN5901	* 1-564-510-11	PLUG, CONNECTOR 7P			
CN5904	* 1-770-723-11	CONNECTOR, BOARD TO BOARD 8P			

REF. NO.	PART NO.	DESCRIPTION			REMARK
		<DIODE>			
D5901	8-719-911-19	1SS119-25			
D5902	8-719-110-88	RD39ES-B2			
D5903	8-719-911-19	1SS119-25			
D5904	8-719-110-88	RD39ES-B2			
D5905	8-719-911-19	1SS119-25			
D5906	1-249-406-11	CARBON	120	5%	1/4W
D5907	1-249-406-11	CARBON	120	5%	1/4W
		<COIL>			
L5901	1-414-187-11	INDUCTOR	47UH		
		<TRANSISTOR>			
Q5901	8-729-230-45	2SC2458-YGR			
Q5902	8-729-809-26	2SA1606-E			
Q5903	8-729-230-45	2SC2458-YGR			
Q5904	8-729-119-76	2SA1175-HFE			
Q5905	8-729-230-45	2SC2458-YGR			
Q5906	8-729-809-29	2SC4159-E			
Q5907	8-729-230-45	2SC2458-YGR			
		<RESISTOR>			
R5901	1-249-401-11	CARBON	47	5%	1/4W
R5902	1-249-414-11	CARBON	560	5%	1/4W
R5903	1-247-734-11	CARBON	39	5%	1/2W
R5904	1-249-411-11	CARBON	330	5%	1/4W
R5905	1-249-417-11	CARBON	1K	5%	1/4W
R5906	1-249-417-11	CARBON	1K	5%	1/4W
R5907	1-249-417-11	CARBON	1K	5%	1/4W
R5908	1-249-383-11	CARBON	1.5	5%	1/4W
R5909	1-249-409-11	CARBON	220	5%	1/4W
R5910	1-249-403-11	CARBON	68	5%	1/4W
R5911	1-249-439-11	CARBON	68K	5%	1/4W
R5912	1-249-437-11	CARBON	47K	5%	1/4W
R5914	1-249-403-11	CARBON	68	5%	1/4W
R5915	1-249-429-11	CARBON	10K	5%	1/4W
R5916	1-249-419-11	CARBON	1.5K	5%	1/4W
R5917	1-249-416-11	CARBON	820	5%	1/4W
R5918	1-249-429-11	CARBON	10K	5%	1/4W
R5919	1-249-417-11	CARBON	1K	5%	1/4W
R5920	1-249-439-11	CARBON	68K	5%	1/4W
R5921	1-216-476-11	METAL OXIDE	180	5%	3W
R5922	1-249-414-11	CARBON	560	5%	1/4W
R5923	1-249-383-11	CARBON	1.5	5%	1/4W
R5925	1-249-400-11	CARBON	39	5%	1/4W
R5927	1-249-416-11	CARBON	820	5%	1/4W
R5929	1-215-880-00	METAL OXIDE	10	5%	2W

****

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The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK
		MISCELLANEOUS	
		**********	
	1-419-294-11⚠	COIL, DEGAUSSING(KV-XA29M84 ONLY)	
	1-419-323-11⚠	COIL, DEGAUSSING(KV-XA29M60 ONLY)	
	1-452-094-00	CIRCULAR DISC MAGNET B	
	1-452-032-00	MAGNET,DISC	
	1-452-896-11	COIL, NA ROTATION (RT200)	
	1-452-896-91	COIL, NA ROTATION(KV-XA29M60 ONLY)	
	1-467-525-31⚠	CAP BLOCK, HIGH-VOLTAGE	
		(KV-XA29M84 ONLY)	
	1-529-190-11	SPEAKER (5CM)	
	1-529-563-11	SPEAKER (15X6.5CM)	
	*1-555-110-00	P-P CABLE(KV-XA29M84 ONLY)	
	1-569-008-21	ADAPTOR, CONVERSION 2P	
		(KV-XA29M84 ONLY)	
	1-575-023-11⚠	CORD, POWER (WITH CONNECTOR) 6A/250V	
		(KV-XA29M60 ONLY)	
	1-574-062-11⚠	CORD, POWER (WITH CONNECTOR) 2.5A/250V	
		(KV-XA29M84 ONLY)	
	8-451-494-31⚠	DEFLECTION YOKE Y29RSA-S	
	8-735-056-05⚠	PICTURE TUBE (M68LNH070X)	
		(KV-XA29M60 ONLY)	
	8-735-057-05⚠	PICTURE TUBE (M68LNH070X)	
		(KV-XA29M84 ONLY)	
	8-453-011-11	NA299-M	
		**********	
		ACCESSORIES AND PACKING MATERIALS	
		**********	
	3-701-910-00	SCREW, SPECIAL (DIA. 3.8X20)	
	4-054-764-01	BAG,PROTECTION(KV-XA29M60 ONLY)	
	4-029-168-01	BAG, PROTECTION(KV-XA29M84 ONLY)	
	4-065-210-01	JOINT	
	4-080-174-11	MANUAL, INSTRUCTION	
		(KV-XA29M60 ONLY)	
	4-078-793-51	MANUAL, INSTRUCTION	
		(KV-XA29M84 ONLY)	
	4-080-175-01	CUSHION(LOWER)(ASSY)	
		(KV-XA29M60 ONLY)	
	4-078-945-01	CUSHION(LOWER)(ASSY)	
		(KV-XA29M84 ONLY)	
	4-080-176-01	CUSHION(UPPER)(ASSY)	
		(KV-XA29M60 ONLY)	
	4-078-948-01	CUSHION(UPPER)(ASSY)	
		(KV-XA29M84 ONLY)	
	4-080-177-01	INDIVIDUAL CARTON(KV-XA29M60 ONLY)	
	4-080-178-01	TRAY(KV-XA29M60 ONLY)	
	4-079-400-01	TRAY(KV-XA29M84 ONLY)	
	4-392-003-21	BAND, HOLD	
	4-059-705-01	CLIP(KV-XA29M60 ONLY)	
	4-392-004-11	CLIP(KV-XA29M84 ONLY)	
		**********	
		REMOTE COMMANDER	
		**********	
	1-418-038-12	REMOTE COMMANDER (RM-954)	
		(KV-XA29M60 ONLY)	
	1-418-040-12	REMOTE COMMANDER (RM-953)	
		(KV-XA29M84 ONLY)	
	4-987-977-01	BATTERY COVER REMOTE COMMANDER	
		(RM953)	
	9-933-895-01	BATTERY COVER REMOTE COMMANDER	
		(RM954)	

9-872-225-01

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Sony Technology Malaysia Sdn. Bhd.
Visual Entertainment General Area

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